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ABSTRACT

This collection of 107 abstracts of sex equity projects currently funded by the National Institute of Education (NIE) and 122 abstracts of NIE-sponsored sex equity publications indicates NIE's activities in the area of sex fairness and describes the results of NIE's research; it is intended to facilitate communication among researchers and others about R & D work. Projects promoting sex equity in the following areas are described: (1) women in mathematics, science, and technology: (2) sex equity in careers and employment: (3) sex equity in elementary and secondary school practices: (4) women with special needs: (5) women educators: (6) women in higher and continuing education: and (7) general projects on sex equity. Publications abstracted cover recent items not yet available in ERIC: women and mathematics: sex equity in elementary and secondary school practices: sex equity in careers and employment: sex roles in early childhood socialization: sex differences in achievement and motivation: sex equity for groups with special needs: women educators: women in higher and continuing education: and general publications on sex equity. An appendix lists NIE program staff responsible for sex equity projects. (FM)

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SEX EQUITY IN EDUCATION: NIE-SPONSORED PROJECTS AND PUBLICATIONS

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SEX EQUITY IN EDUCATION: NIE-SPONSORED PROJECTS AND PUBLICATIONS

Contents

I. OVERVIEW OF NIE SEX EQUITY PROJECTS AND PUBLICATIONS 1

II. CURRENT NIE PROJECTS TO PROMOTE SEX EQUITY IN EDUCATION 5

Women in Mathematics, Science, and Technology 7

Sex Equity in Careers and Employment 37

Sex Equity in Elementary and Secondary School Practices 51

Women with Special Needs 59

Women Educators 71

Women in Higher and Continuing Education 81

General Projects on Sex Equity 117

III. NIE-SPONSORED PUBLICATIONS ON SEX EQUITY

Recent Publications Not Yet Available in ERIC 125

Women and Mathematics 132

Sex Equity in Careers and Employment 135

General Resources and Legislation 136

Career Decision Making and Counseling 139

Women and the Labor Market 145

Practices to Reduce Sexism in Vocational and Career Education 152

Sex Roles in Early Childhood Socialization 161

Sex Differences in Achievement and Motivation 169

Sex Equity in Elementary and Secondary School Practices 173

Reading and Linguistics 174

Activities in Classrooms and Schools 176

Athletics 182

Testing 183

Sex Equity for Groups with Special Needs 185

Minority Women 186

Black Women 188

Mexican American Women 191

Indian Women 193

Women Educators 195

Women in Higher and Continuing Education 201

General Publications on Sex Equity 207

APPENDIX

NIE Program Staff Responsible for Sex Equity Projects 214

I. OVERVIEW OF NIE SEX EQUITY PROJECTS AND PUBLICATIONS

The National Institute of Education (NIE) was created by the Congress in 1972 as the primary Federal agency for educational research and development. Its mission is twofold: to promote educational equity and to improve the quality of educational practice.

To achieve these goals, NIE supports research and dissemination activities aimed at helping individuals to realize their full potential through education, regardless of race, sex, age, economic status, ethnic origin, or handicapping condition.

NIE has organized its work around three broad program areas: Teaching and Learning (T&L), Educational Policy and Organization (EP&O), and Dissemination and Improvement of Practice (DIP). Sex equity is an important concern in all three program areas.

T&L supports a Social Processes/Women's Research Team, a Mathematics Learning Team, and a Home, Community, and Work Program. EP&O supports a Women's Studies Team, the National Commission on Working Women, policy studies related to teenage pregnancy, and a congressionally-mandated vocational education study which is examining (1) the targeting of funds for women and other populations, and (2) assessing the degree to which consumer and homemaking education programs are eliminating sex stereotyping. DIP supports a Minorities and Women's Program, with associated research and evaluation activities intended to benefit women specifically, and the ERIC Clearinghouses, which provide the public with numerous sex equity publications.

This publication will indicate what NIE is doing in the area of sex equity, describe the results of NIE's research, and facilitate communication among researchers and others about R&D work--what's been done and what needs doing.

This booklet contains 107 abstracts of sex equity projects currently funded by NIE and 122 abstracts of sex equity publications sponsored by NIE since its inception. They are indications of the wide range of NIE activities designed to promote equity in education. The current project abstracts were selected from a total of 700 ongoing NIE projects in FY 1979. The publication abstracts were selected from the many products of NIE-funded research over the years.

NIE funds research, development, evaluation, dissemination, and technical assistance projects. The majority of the sex equity projects are research projects in which investigators analyze or synthesize existing data or collect and analyze new information. Projects involving sex equity fall into seven content categories.

Women in Mathematics, Science, and Technology: Since 1977, NIE has funded research grants to help identify social processes that facilitate or inhibit the learning and achievements of women in the three disciplines. The projects deal with various populations at the college, senior high, junior high, and elementary school levels. Two of the 29 current projects are funded by the Minorities and Women's Program. The National Science Foundation also supports sex equity research, program development, and evaluation in the math and science disciplines.

Sex Equity in Careers and Employment: NIE is currently funding 13 projects related to sex equity in careers and employment. The projects focus on working women, preadolescent children, and the various factors that influence aspirations and attitudes of girls and boys. The U.S. Office of Education (Office of Career Education and Bureau of Occupational and Adult Education), along with the U.S. Department of Labor, also support programs in R&D on sex equity in careers and employment.

Sex Equity in Elementary and Secondary School Practices: NIE continues to fund research on reading, athletics, student/teacher interactions, multicultural perspectives, school policies, and testing--all of which relate to sex equity. Several of these projects focus on identifying and rectifying race as well as sex bias.

Women with Special Needs: NIE-supported research on the needs of minority women has produced several specialized publications on Black, Mexican American, and Native American women, with reports due soon on other minority women. Additional NIE-funded research addresses the vocational education needs of rural women and women in jail. NIE is also participating in HEW policy studies on teenage pregnancy.

Women Educators: Women traditionally have held the less prestigious positions in educational organizations, and current research indicates the gap is widening. Numerous NIE projects and publications focus on the kinds of problems women have had and on the kinds of influence they wield as community leaders, school board members, administrators, teachers, and R&D personnel. The Women's Educational Equity Act Program in the U.S. Office of Education supports development work in this area and has a series of projects under way.

Women in Higher and Continuing Education: A number of NIE-funded research studies focus on women students, women faculty, and higher education administrators, with almost all the projects concentrating on colleges and universities rather than junior colleges. Because many of the researchers interested in sex equity in education are located at institutions of higher education, they are in a good position to identify the types of sex discrimination that exist in their own environment. Many of the projects in this category, specifically those designed to increase the participation of minorities and women in educational R&D, are funded by the Minorities and Women's Program.*

General Projects on Sex Equity: This category covers projects and publications dealing with such facets of sex equity as legislation, dissemination of information on sex equity R&D, and the development of guidelines on how to avoid sex bias in educational research.

Funds for research and development on sex equity topics are limited. Prospective researchers must therefore be creative in their search for support. Sex equity R&D issues often fit comfortably under various Federal program solicitations which might at first glance seem unlikely--i.e., career education, teacher education, mental health, school law. Many Federal agencies, like NIE, are responsive to equity concerns in their programs and will welcome projects with a sex equity emphasis.

Specific programs in the sex equity areas are listed in "Finding Funds for Programs Relating to Women's Education Equity." This January 1978 publication was sponsored by the Women's Educational Equity Act Program in the U.S. Office of Education and is available for $2.50 from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, or from ERIC (number ED 156-102).

To submit a proposal to NIE, write to the Women's Research Team, Teaching and Learning Program, National Institute of Education, 1200 19th Street, N.W., Washington, D.C. 20208. Request that your name be placed on the mailing list to receive grant announcements and requests for proposals. If your R&D idea does not address the objectives of specific NIE funding solicitations, you may want to request guidelines for submitting an unsolicited proposal. Write to the NIE Clearinghouse, attention Dorothy Moody, at the same address

*For information on their most recent projects, contact this Program directly.

II CURRENT VIE PROJECTS TO PROMOTE SEX EQUITY IN EDUCATION

WOMEN IN MATHEMATICS, SCIENCE AND TECHNOLOGY

This section includes seventeen abstracts of mathematics projects, three of math and science projects and nine of science and technology projects. Within each of the three content areas, the projects are grouped according to the age range of the primary population which is being studied.

ACQUISITION OF SPATIAL CONCEPTS IN RELATION TO AGE AND SEX: A TASK ANALYSIS APPROACH

Population:	Children in preschool and Kindergarten, children ages 3-8 yrs, and children ages 6-8 yrs.	Award Period:	9/79 - 8/80
		Amount:	$50,100

This research will delineate and describe sex and age differences in spatial representational skills.

Sophisticated spatial representational skills are an aspect of mathematics where females perform less ably than males. Although spatial abilities have been studied descriptively and ontogenetically, we still know little about them, or about the kinds of experiences which promote proficiency. The purpose of this project is to provide the information by delineating the component skills that are related to spatial representational abilities and describing age and sex differences in skill proficiency.

Eight empirical studies are planned examining simple through complex skill levels. Approximately eighty male and female students will participate in each study. These studies are compartmentalized into three hierarchically arranged points of inquiry: (1) an examination of static representational abilities prerequisite to understanding projective kinetic spatial relationships in preschool and kindergarten students; (2) an examination of kinetic aspects of spatial representation in girls and boys ranging in age from three to eight years; and (3) an examination of anticipatory imaging in children ages six to eight. Data that is collected will be examined through the use of ANOVA techniques, error ananlysis, and scalogram ananlysis.

These studies should contribute to the development of materials that promote skill acquisition in an equitable manner.

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THE DEVELOPMENT AND FUNCTION OF CHILDREN'S SPATIAL IMAGERY

Population: Children, ages 5-12 yrs, white middle-class

Award Period: 8/79 - 7/82
Amount: FY '79 $23,800
FY '80 39,900
FY '81 41,500
$105,200

Studies will be conducted to investigate patterns of change on judgement and imagery of length conservation tasks; childrens' spontaneous constructions; and reaction time of mental rotation processes.

The research outlined in this proposal focuses on children's anticipatory spatial imagery. The objectives are (a) to trace developments in imagery in relation to developments in children's concepts of spatial relationships, and (b) to investigate children's spontaneous use of transformational imaging processes in unstructured task situations; and (c) to study the effects of these processing strategies on children's memory for figurative states.

Five studies are proposed. Four will include between 60 and 90 white middle-class boys and girls ranging from 5 to 12 years of age. One study will investigate patterns of change over a two year period in relations between children's performances on judgment and imaging versions of a length conservation task. Change patterns will be evaluated in relation to Piaget and Inhelder's (1971) hypothesis that developments in children's thought are prerequisites for corresponding imaging developments. In two studies, children will be shown objects, states or scenes which are either static or imply specific action sequences, and asked to use them as a basis for asking questions or constructing other states. The focus will be on the quality of children's spontaneous constructions. Finally, two studies will use a reaction-time paradigm to investigate children's mental rotation processes of middle and lower SES children. Analyses of variance distinguishing orthogonal trend components will be used on the RT data.

The results of this study should be of theoretical importance to cognitive psychologists, and practical importance to educators interested in the functional importance of transformational imaging processes for understanding, remembering and elaborating figurative information.

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CHILDREN'S IMAGES OF SPATIAL MOVEMENTS AND "THEIR EUCLIDEAN GEOMETRIC OPERATION"

Population: Upper middleclass girls, ages 11 yrs. and middle-class girls 6-11 yrs. old.

Award Period: 8/21/78 - 8/20/80

Amount: FY '78 - $12,869
FY '79 - 12,577
$25,446

Patterns of change in children will be observed in a period of 18 months regarding geometry and spatial imaging.

The two main objectives of the research proposed here are (a) to define the nature of the developmental relationship between children's understanding of fundamental Euclidean geometric concepts and their ability to imagine movements of objects in space, and (b) to delineate the nature of the specific cognitive processes that children at different developmental levels use on two and three dimensional spatial imaging tasks.

The results of these studies will help to clarify the role of operatory development in children's imaginal functioning, and to integrate the methodologies and empirical findings of Piagetian and information-processing approaches to the study of mental imagery.

In one experiment, 40 upper-middle class girls between 6 and 11 years of age from a private elementary school will be tested on geometry and spatial imaging tasks in the third of three sessions, spaced 18 months apart. The objective is to analyze patterns of change over time to determine the nature of the developmental relationship between imaging and operatory thought. Data will be analyzed in relation to Wohlwill's developmental stage models models (Wohlwill 1973.)

A second series of experiments with 60 middle class girls between 6 and 11 years of age will use reaction time measures to differentiate those children who use imaging strategies relying on the detection of perceptual correspondences from those who use logically based anticipatory imaging strategies. Children's use of such strategies on two and three dimensional imaging tasks will be related to their levels of understanding of the structure of Euclidean space. Data on reaction time measures will be subjected to trend ananlyses.

This work should contribute to our understanding of the cognitive processes required for performance on geometry tasks, and the underlying developmental bases for these processes.

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ATTRIBUTIONS AND ACADEMIC CHOICE: ORIGINS AND CHANGE

Population: Students in grades 5-12

Award Period: 12/1/7/- 11/30/79

Amount: $107,083

This is a study of the determinants of one's decisions to take or not take mathematics using an expetancy/value model of behavior.

The project has three major objectives: 1) the assessment of the relative importance of various social and psychological factors in mediating differential participation rates in mathematics; 2) the identification of the developmental origins of individual differences on these social and psychological variables; and 3) the plotting of these individual differences from 5th to 12th grades.

The project will employ cross-sectional and longitudinal samples of children in grades 5 through 12 in Livonia, Michigan. Initially, 420 students in grades 5 through 11 (60 per grade) will be measured on selected cognitive and affective variables. In addition, their parents' and teachers' attitudes and behaviors will also be assessed. In the second year, the same measures will be readministered to these students who will then be in grades 6 through 12. To replicate the findings, an additional sample of previously untested children in grades 5 through 11, their parents and teachers will also be tested.

The results of this study will include suggestions for age appropriate intervention procedures designed to increase the likelihood that girls who are capable of taking mathematics elect advanced mathematics classes.

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WHY WOMEN AVOID THE STUDY OF MATHEMATICS: A LONGISECTIONAL STUDY

Population: 6th through 12th grade students

Award Period: 10/1/77-9/30/79

Amount: $138,627

This is a study of the cognitive and social/emotional predictors of participation in math.

To isolate the causes of women's avoidance of mathematics and to trace the development of their decision for non-participation, the study uses a longitudinal design following about 1,500 students drawn from three diverse school systems in Connecticut and Massachusetts (one rural, one suburban, and one urban). In the initial data collection period (1976-7) 900 students were chosen from the 6th and 12th grades. In the NIE study the youngest two groups and all of their classmates were tested as 7th and 8th or as 10th and 11th graders.

Eight areas have been identified as possible predictors of participation in mathematics: quantitative ability; spatial ability, attitudes toward the creativeness, accessibility, and usefulness of mathematics; a stereotype of mathematics as a male domain; mathematics anxiety; influence of significant others; expectations of future quantitative experiences; and career aspirations.

Analyses will compare the sexes on each variable, correlate each variable with participation in high school mathematics and physical science courses, and evaluate several models to explain the interrelationships among the variables.

Results from the study will include suggestions as to how schools may intervene to stop students' avoidance and to encourage their greater participation in mathematics and science.

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THE STUDY OF SOCIAL PROCESSES THAT INHIBIT OR ENHANCE COMPETENCE AND INTEREST IN MATHEMATICS AMONG HIGHLY ABLE YOUNG WOMEN

Population: 7th grade girls and boys who scored high on a SAT math test.

Award Period: 9/16/79 - 9/15/81

Amount: FY '79 - $37,038
FY '80 - 34,154
$71,192

Student questionnaires and parent interviews will be used to determine why adolescent girls with high math ability avoid the study of advanced mathematics.

The purpose of the proposed research study is to investigate the social processes related to the development of interest, self confidence and competence in mathematics and mathematically related careers among adolescent girls who have already been identified as having superior mathematical ability. Home environment will be the primary focus, but perceived support from schools, teachers and peers will also be examined.

Girls and boys, who as 7th graders scored at or above 500 on the Scholastic Aptitude Test Mathematics (SAT-M) in the 1979 Talent Search, will be canvassed by mail questionnaires and interviews with their parents will be conducted. This will include samples of 25 high-interest and 25 low-interest girls and 25 high-interest and 25 low-interest boys. For the second year, a sample of 50 high-ability but low-interest girls for the 1980 sample will be surveyed by questionnaire and a sample of parents of 25 of these girls will be interviewed. A variety of statistical techniques, from Chi-Squares to ANCOVA, will be used depending on the variables being measured. Additional descriptive material and anecdotal reports will also be include.

Many adolescent girls who have ability avoid the study of advanced mathematics in high school and college and thus limit their later career options. The proposed research will hopefully shed light on a variety of home variables and parent behaviors which inhibit or facilitate the development of interest and achievement. This in turn should generate ideas about the counseling and program needs of highly able students and their parents.

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TEACHER/PEER INFLUENCES ON SEX DIFFERENCE IN MATHEMATICS

Population: Students in grades 7 to 8

Award Period: 9/1/79 - 8/1/80

Amount: FY '79 - $47,880
FY '80 - 45,552
Total $93,432

A longitudinal design will be used to observe the classroom influence patterns and student mathematics activities to determine what classroom activities influence students in their ability to learn mathematics.

That females are underrepresented in mathematics-related careers is undeniable. Before this inequity can be altered, it must be ensured that females acquire mathematical knowledge equivalent to that of males. One affective component, the confidence/anxiety dimension has been found to be closely related to both mathematics achievement and the election of mathematics courses. This study will examine the development of and influences on sex-related differences in student confidence in learning mathematics.

The objectives of this study are (a) to identify social processes in mathematics classrooms that influence sex-related differences in mathematics achievement and (b) to examine patterns of influence by teachers and peers that affect students' confidence in their ability to learn mathematics. The study will be lonitudinal, following 128 students through grades 7 and 8. The sample forms a 2x2x2 matrix of students who vary in sex, mathematics achievement and mathematics confidence. Sixteen students per cell will be observed. Data will be collected through two forms of classroom observation. One form will record students' interactions with their teachers. The other will record students' engaged time in mathematics, the cognitive level of their engagement, use of spatial representations to do mathematics, interactions with peers concerning mathematics and student location in the classroom. Students will be observed for 20 mathematics class periods during the spring semester of grades 7 and 8. Data will be analyzed through frequency counts, percents, X^2 tests of independence and analyses of covariance using achievement and confidence as covariates.

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NIE Contact:
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MATHEMATICS, VISUAL-ABILITY AND SEX ROLES

Population: Seventh through tenth grade secondary students and college students

Award Period: 10/1/77-12/31/79

Amount: $95,557

This is a study of the relationship between visual-spatial ability and sex differences in mathematics problem-solving ability and evaluation of visual spatial training activities.

Sex-related differences in visual-spatial ability, beginning at approximately age 12, have been widely noted and it has been suggested that these difference may thus underlie the subsequent development of sex differences in the enrollment and performance of females and males in mathematics courses. However, visual-spatial ability itself appears to consist of 2 to 4 separate component skills, some of which may be more closely related to sex-role conformity and/or mathematics skills than others.

This study focuses on (1) the relationship of specific visual-spatial skills to specific types of mathematical reasoning, problem-solving and achievement, (2) the relationship of sex-role attitudes and sex-role conformity to the development of specific types of visual-spatial ability, (3) the differential effects of training on boys an girls, and (4) the effects of training on mathematics performance.

The study will use both correlational and experimental designs with boys and girls from grades 7,8,9, and 10 in two northeastern school districts. In addition, pilot testing of the training materials will utilize college students from the State University of New York, Binghamton.

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A NATIONAL ASSESSMENT OF PERFORMANCE AND PARTICIPATION OF WOMEN IN MATHEMATICS

Population: 13-year-old-students and students in grade 12

Award Period: 10/1/77-9/30/79

Amount: $218,835

National assessment data will be analyzed to identify cognitive, affective and social factors that influence women's achievement and participation in math.

The purpose of this study is to identify and determine the relative importance of each of the many factors that previous research suggests may be affecting women's participation in mathematics. A survey questionnaire was developed and administered to a national sample of 13-year-olds and high school seniors (men and women) by the National Assessment of Educational Progress. Data was collected on mathematics achievement (computation, problem solving, algebra and spatial visualization); attitudes towards sex-role stereotyping: career plans, confidence, anxiety and enjoyment of mathematics; usefulness of mathematics to the individual; academic plans; and parental, peer, teacher and counselor influences. Background information included sex, age, SES, parental education and occupation.

Based on preliminary correlational analyses, the factors which seem to be affecting women's participation in high school mathematics are the variables related to attitudes towards mathematics (confidence, anxiety, enjoyment, and usefulness), career and academic plans and parental and teacher encouragement.

Data will be analyzed to explore hypotheses about variables that would guide future intervention. Recommendations for intervention strategies will be made based on the survey results.

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WOMEN AND MATHEMATICS: PREDICTION AND CHANGE OF BEHAVIOR

Population: Students in grades 8-12

Award Period: 10/1/77-9/30/79

Amount: $115,364

This longitudinal study will attempt to identify cognitive and affective factors which predict boys' and girls' enrollment and performance in advanced high school mathematics in grades 11 and 12.

Prediction will be based on characteristics of these students identified in grades 8 and 9. Students will be selected from four high schools in Madison, Wisconsin.

Data are available on the following cognitive and affective variables: verbal and/or general ability, spatial visualization, math achievement, math activities outside of school, and eight attitudinal scales (confidence in learning mathematics, perceived attitudes of mother, father and teacher toward one as a learner of mathematics, attitude toward success in mathematics, math as a male domain, and evidence of motivation in mathematics). In previous research, these variables all showed meaningful relationships to mathematics achievement and enrollment. This study would explore the stability of these relationships over time.

In addition, the study will focus on sex-role attitudes and ways of coping with sex-role conflicts which differentiate girls who do and do not continue in the study of mathematics. Such information will be collected through interviews with girls in grades 11 and 12.

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WOMEN AND MATHEMATICS: THE IMPACT OF EARLY INTERVENTION PROGRAMS UPON COURSE-TAKING AND ATTITUDES IN HIGH SCHOOL

Population: High ability junior and senior high school students

Award Period: 10/1/77-9/30/79

Amount: $95,307

This is a study of the effects of three programs for high ability seventh grade students on subsequent enrollment in mathematics and attitudes about mathematics.

One of the major sex differences in mathematics achievement is the differential rate of study of advanced courses in mathematics at the high school level. This study will investigate the effect of three different programs administered to high ability girls in grade seven: a career awareness class for girls sponsored by The Johns Hopkins University, a summer accelerated mathematics program for girls conducted at Johns Hopkins, and school system based accelerated mathematics programs for boys and girls conducted in three states. These programs will be studied for their impact on later enrollment in mathematics and on attitudes toward mathematics. Control groups of boys and girls of high ability, but not exposed to the special programs, will be studied.

Information will also be collected on factors that influence the decisions to take or not to take advanced mathematics courses. Instruments will be used to assess attitudes toward mathematics in three areas which are thought to be related to sex differences: (1) the usefulness of mathematics, (2) self-confidence as a learner of mathematics, and (3) the perception of mathematics as a masculine subject. Career interests and life style aspirations of these highly able students will also be studied.

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STUDY OF FACTORS INFLUENCING WOMEN'S DECISIONS TO ENROLL IN ELECTIVE MATHEMATICS CLASSES

Population: High school students, their teachers, counselors, and parents

Award Period: 12/1/77-3/31/79

Amount: $179,326

This study will try to identify personal factors and school practices which promote high enrollment and achievement and more positive attitudes toward mathematics among high school females.

Specifically, the study will 1) identify major personal, social and school-related factors that influence student decisions to enroll in advanced mathematics courses, and 2) to identify mathematics interventions or career education programs that promote high enrollment of women in mathematics courses. These factors will be studied in eight high schools in San Francisco, Oakland and San Jose which vary on the percentage of women enrolled in mathematics courses. Within each school, systematic classroom observations will be made to determine the effect of the mathematics teacher on students' achievement, attitudes and future enrollment in math courses. Information on counseling services, career education programs and math intervention programs will also be obtained for each school. The effect of parents will be determined by obtaining information from each student on parents' education, occupation and expectations concerning their children's math achievement and future enrollment.

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FACTORS RELATED TO YOUNG WOMEN'S PERSISTENCE AND ACHIEVEMENT IN MATHEMATICS, WITH SPECIAL FOCUS ON THE SEQUENCE LEADING TO AND THROUGH ADVANCED PLACEMENT MATH

Population: 10th and 12th grade students in accelerated math courses

Award Period: 10/1/77-9/30/79

Amount: $60,000

This is a study of high ability high school students' attitudes about continuing in math. It is known that proportionally more boys than girls study mathematics beyond the 10th grade. Previous research seems to indicate that the disparity in mathematics persistence will be found in social press and in the attitudes of the student herself and of significant others.

This longitudinal study is focusing on eight high schools chosen to be as diverse as possible in socioeconomic status charactertistics, their geographic locations and their ethnic makeups, yet all have strong advanced placement mathematics courses. The high schools vary on two dimensions: 1) the proportion of girls in the advanced courses, and 2) the proportion of girls taking the Advanced Placement Examination, sponsored by the College Entrance Examination Board. Questionnaires were administered to the students in the accelerated tenth grade and Advanced Placement (AP) Mathematics classes in these schools. Interviews with teachers, counselors, and students in the AP classes have provided cross-sectional and retrospective data. Additional interviews with a number of the original 10th graders one year later, and follow-up questionnaires to the students in the original AP classes, provide a longitudinal dimension.

The identification of factors that inhibit young women from pursuing advanced mathematics programs in high school will permit educators to eliminate these barriers. Conversely, identified positive factors can then be deliberately encouraged by schools, thus assuring more high-ability women a stronger mathematics background which should increase their later educational and occupational options.

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MOTIVATIONAL & BACKGROUND FACTORS INFLUENCING ENROLLMENT IN COLLEGE MATHEMATICS COURSES

Population: Undergraduate college students at the University of Pittsburgh

Award Period: 9/1/78-7/15/79

Award: Part of larger award

This project is a survey of students taking college level and remedial mathematics in order to see how the two groups differ in their mathematics background, their attitudes about mathematics and their beliefs about the causes of success and failure in mathematics.

Although mathematics anxiety effects all groups in our society it seems to be a special problem of women. Women, in general, have less confidence in their mathematical abilities than men do. This lack of confidence may come from any several sources. One of these may be a general lack of confidence in their academic abilities.

Beginning at preschool ages, girls begin to have less confidence in themselves when confronting than boys do, especially for "masculine" tasks such as mathematics. When they so poorly, girls tend to see this as a confirmation of their suspected low ability levels; and when they do well, girls may not take as much personnal responsibility for their successes as boys do.

This study is based on a survey of 275 students enrolled in highschool level (remedial) and regular entry-level (calculus) college mathematics courses at the University of Pittsburgh.

Students were asked about their mathematics backgrounds and the attitudes they had about mathematics in earlier years of school. They were also asked about their beliefs about why success and failure occur in mathematics. It was expected that the remedial students as compared to the calculus students would show a variety of debilitating attitudes and would make less constructive attributions about success and failure in college mathematics.

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NIE Contact:
Teaching & Learning Cognitve Studies Team

ROLE MODELING PROCESSES AND EDUCATIONAL INEQUITY FOR GRADUATE AND UNDERGRADUATE STUDENTS IN MATHEMATICS

Population: Undergraduate and graduate mathemathics students

Award Period: 9/16/79 - 9/15/81

Amount: FY '79 - $49,010
FY '80 - 44,559
$93,569

Students will be interviewed to determine how they model their roles related to mathematics.

The purpose of this project is to investigate the role modeling processes of male and female mathematics students at both the undergraduate and graduate levels. The study will focus on the interplay of structural conditions, career circumstances, and interpersonal relations in order to determine the special barriers and problems that female students confront. An array of sex-differentiated problems must be faced by women in male-dominated professions, and many of these problems can be traced to patterns of conduct and influences from early school years. Successive clusters of factors favoring male achievement and aspirations feed into a circular pattern culminating in very low proportions of women eligible for positions of power and prestige. This study contends that the role modeling process lies at the heart of the perpetuation of systems of disadvantage for women.

Data will be collected with focused interviews of students from four universities in the Chicago area. A comparative research design will be used to generate systematic matched samples of forty male and forty female graduate students and eighty male and eighty female undergraduate students. The design allows comparisons of the role modeling process, including its structural and social organizational components, in departments with female faculty members as well as those without female faculty members. Comparisons also will be made between elite and non-elite universities. In addition, twenty female and twenty male faculty members in mathematics departments will be interviewed to learn about modeling processes from their perspectives.

This study will offer information about the social processes underlying educational inequities for women in higher education. The study will also provide a data base for examining and formulating departmental and university policies in an effort to reduce those inequities.

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NIE Contact:
Teaching & Learning
Development
Mathematics Study
Team

"NICE GIRLS DON'T STUDY MATHEMATICS"

Population: Women with Phd's in Mathematics, Psychology, and English; Students in grades 3-12

Award Period: 12/1/77-11/30/79

Amount: $112,720

This is a study of the cultural, social, and psychological antecedents of females' participation in math.

The major objectives of this study are 1) to determine the ages at which females are most influenced by cultural stereotypes related to mathematics, and 2) to document the specific effects of parents, peers and the educational setting in influencing females' mathematical behavior.

Part I of the study will focus on female mathematicians who have overcome time, cultural and psychological barriers which have prevented so many other women from entering the field. Three hundred women with recent doctorates in mathematics (since 1972) will be compared to a similar number of recent female graduates in psychology and English.

In Part II, samples of 50 children of each sex in grades 3 through 6 from the Denver Public Schools will participate in an investigation to determine how parental attitudes about mathematics effect children's attitudes toward and achievement in mathematics.

Part III will explore the stereotypic attitudes and beliefs of females in grades 7 through 12 and will determine the extent to which parents, peers and the educational setting effect these students' attitudes toward and achievement in mathematics.

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NIE Contact:
Teaching & Learning Mathematics Studies Team

THE LONG TERM CAREER CONSEQUENCES OF SEX DIFFERENCES IN AMOUNT OF HIGH SCHOOL MATHEMATICS

Population: Adults in early 30's

Award Period: 11/1/77-10/31/78

Amount: $68,319

This is a longitudinal study of the role of mathematics education in women's career development.

The study will utilize the Project TALENT data base containing information on a representative sample of Americans now in their early 30's. Phase I will investigate the decisions to take elective mathematics courses, using a subsample of roughly 7,500 men and women who were tested in 1960 and 1963 when they were in the 9th and 12th grades. Phase II will document the long term consequences of the number of mathematics courses taken and the level of developed math abilities for subsequent career development, particularly for the development of math-related careers. The second phase will use members of the high school class of 1960 who were tested 1, 5 and 11 years after their expected high school graduation.

The results of the proposed analyses will be disseminated to researchers, policy makers, teachers, counselors, students, and parents. By communicating the importance of mathematics training and providing descriptions of the life-career paths of women who have been successful in developing math-related careers, the results can have a significant impact on the career decisions of the young woman of today.

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MINORITY FEMALE INVOLVEMENT IN HIGH SCHOOL SCIENCE AND MATHEMATICS

Population: High school students and staff

Award Period: 9/30/79 - 6/24/81

Amount: FY '79 35,800
FY '80 50,000 Estimate
85,800 "

A large-scale survey to identify types of school and teacher characteristics which might encourage black girls to choose the sciences will be conducted.

The proposed project could be entitled, "Simply an Equal Chance," for its aim fundamentally is to help extend to black females the career options that some other groups already exercise. The proposal proceeds from the assumption that we can identify and cultivate conditions which are likely to result in the expansion of the pool of minority women scientists and technicians. It is assumed as well that many of the critical conditions lie within the scope and milieu of our secondary schools. But what are the school-related characteristics and processes which, if promoted, could enhance the participation of black females in scientific and technical fields? This is the key question for the planned inquiry.

To answer this question, a major school survey is envisioned. Questionnaire survey of school personnel in over fifty Midwestern and Northeastern high schools which have varying proportions of black students will be conducted. The intent of the activity is to delineate the organizational characteristics of schools and the background and attitudinal traits of teachers and counselors which seemingly contribute to (1) high participation by black females in non-required science and mathematics courses and (2) high involvement in science fairs, clubs and similar extra-curricular activities related to science.

The results of the study should be of special interest to those who wish to remove barriers to employment and to provide to every citizen the chance to augment scientific and technical knowledge. Moreover, because the project is centered on school influences, the practical implications of the study should be both important and helpful to persons who seek to make our educational institutions responsive to societal needs.

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NIE Contact:
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DETERMINANTS OF GENDER DIFFERENCES IN COURSE ENROLLMENT AND GOALS IN MATHEMATICS, SCIENCE, AND ENGINEERING AMONG BLACK AND WHITE COLLEGE STUDENTS

Population: Students in their first two years of college

Award Period: 9/30/79 - 9/29/81
Amount: FY '79 - $45,920

Questionnaires and an examination of student records will be used to collect longitudinal data on students at a coeducational and at a women's college to determine critical decision points in their choice of careers.

This study will assess the impact of a variety of social process variables on the enrollment of male and female students in mathematics, science, and engineering courses; their choice of major; and their educational and career aspirations. The principal aim of this research is to discover the patterns of interaction among students' individual characteristics, interpersonal experiences, and learning environments which contribute to the differential recruitment of male and female students to courses, majors, and careers in these areas. The focus will be on the first two years of college, with registration for each semester's courses and final selection of a major conceptualized as critical decision-making points in each student's educational and occupational career.

Longitudinal data will be collected at two colleges of a large state university, one a coeducational institution and the other a women's college. Black and White students will be studied from their initial enrollment as freshmen until the end of their sophomore year, with questionnaires administered at six different times. Data will also be gathered from students records and class rosters. Most data will be quantitative and analyzed through linear regression models, discriminant analysis, and path analysis. Approximately 1500 students will be involved.

Results will point to elements in the undergraduate environment which can be modified to channel more white and black women towards nontraditional training and career choices early in their college careers, thus contributing to greater equality of educational opportunity and outcome for female students.

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NIE Contact:
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WOMEN'S PEER GROUPS AND CHOICE OF CAREER

Population: Black and White first-year and second-year university women

Award Period 9/1/79 - 2/28/81

Amount: FY '79 - $46,008
FY '80 - 23,479
$69,487

Observations, interviews and questionnaires will be used to examine peer group influences on college women's choice of major fields.

The proposed research will explore the process by which women's career preparations are influenced by their peers. The study will focus on how, in the context of peer-group activities, ideas about appropriate female behavior, including careers, are learned. The influence of peer groups on college women's choice of major is the central research question.

The data will be obtained primarily from intensive observation of and interviews with thirty black and white women during the year preceding their declarations of a major at two universities. These women will be observed as they interact with their peers and interviewed about these activities. A questionnaire, which builds on findings from these intensive methods, will be administered to 1000 sophomore women at the two universities. The questionnaire will provide extensive data on the association between peer-group characteristics and choice of major.

Unlike previous research which focuses on how characteristics of individuals influence their career choices, this research emphasizes the role of social contacts and informal groups in accounting for gender segregation of occupations. By revealing how group social processes work to support or hinder particular career choices, this research will aid educational policy makers and practitioners in designing programs to provide peer-dominated organizational support for black and white women to pursue nontraditional careers with mathematical scientific or technological bases.

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RELATIONSHIP OF SIGNIFICANT OTHERS, PARENTAL AND TEACHER INFLUENCES TO THE DEVELOPMENT OF SELF CONCEPT, SCIENCE ATTITUDES AND ACHIEVEMENT AMONG ADOLESCENT GIRLS

Population: Boys and girls in grades 7 - 9 Award Period: 9/30/79 - 9/29/81 -

Amount: FY '79 - $30,000
FY '80 - 30,000
$60,000

This longitudinal study will examine the relationship of students attitudes toward science and their science achievement, self concept and perceptions of their sex roles.

The relationship of these social variables to progress in science will be studied in a lonitudinal research design for both boys and girls as they progress from grades 7-9. Data will be collected by direct classroom observation and by group testing of over 300 subjects in 12 separate classrooms. A battery of nine instruments will be assembled to measure students' attitudes toward science, achievement, self concept, sex-role concept for males and females, influnce of significant others, social status, and classroom interactions with teachers and peers. By racial composition, the subject group will be approximately 45% black and 55% white. They will range in age from 12-16 years.

It is hypothesized that data will show a differential treatment for male and female students in science classes from both teacher and peer groups. It is expected that this differential treatment will be reflected in the self concepts of male and female students toward science and in differences in their achievements and attitudes toward science which become greater over the span of the junior high years. If social factors influencing girls to lose their interests in science during these critical years can be identified and lessened in impact, then more equitable representation of women will occur in future career areas of science and technology.

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SOCIAL INFLUENCES ON THE PARTICIPATION OF MEXICAN-AMERICAN WOMEN IN SCIENCE

Population: Anglo and Mexican-American junior and senior high students and female Mexican-American scien tists

Award Period: 9/79 - 9/81

Amount: FY '79 - $53,500
FY '80 - 42,000
Total - $95,500

By way of questionnaires and interviews this study will attempt to identify barriers and factors leading to success for Mexican-American female scientists.

This study will (1) identify barriers to Mexican-American female scientists by comparing factors determining career and course decisions of junior high and high school students, Anglo and Mexican-American females and males. 900 junior high students--300 from Nogales, Arizona and 600 from Tucson, Arizaona--and 1500 high school students--500 from Negales and 1000 from Tucson--will complete questionnaires. The influence of teachers, counselors, parents, and peers and the effect of self-image and attitudes will be evaluated by means of questionnaires and interviews. (2) Concurrently, the study will pinpoint factors leading to success for Mexican-American female scientists holding Bachelor's or graduate degrees in science though interviews with them and with a comparative sample of non-Mexican-American and non-minority female scientists. Similarities and differences in educational and social experience will be identified.

Currently, few Mexican-American females are scientists. Both the identification of factors preventing and factors facilitating female participation in science are critical first steps in increasing the numbers of qualified Mexican-American female scientists.

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NIE CONTACT:
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FACTORS INHIBITING SCIENCE CAREERS FOR BLACK WOMEN

Population: Black Females in high school, college & graduate school

Award Period: 10/1/78-12/31/79

Amount: $21,636

This small scale research is to design a comprehensive national study of factors inhibiting black women from pursuing science careers.

Black participation in science has been severely limited in the past. Historically science has been a prestigious field primarily available to white males. Although white females recently have made some advances in their participation in these fields, blacks and black women in particular still lag behind. Currently, little is known about the social conditions that inhibit black women from entering science. Although it is clear that social factors must be involved, this project will collect and analyze relevant data on black females in a small sample of high, undergraduate, and graduate schools.

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SOCIAL PROCESSES AND INTERNAL FACTORS AFFECTING FEMALE ENROLLMENT IN TECHNICAL VOCATIONAL PROGRAMS

Population: Women enrolled in technical and female traditional vocational programs in secondary school and community college

Award Period: 9/78 - 9/80

Amount: FY '79 $46,100

This survey will attempt to identify factors which influence women's participation in technical areas.

This research will examine the social process, demographic and internal factors which influence women's involvement in technical training. A survey of 360 women enrolled in secondary and community college technical and female-traditional vocational programs, stratified on social class (lower, middle, upper), will be undertaken. Half of the respondents will be women who are either currently enrolled in a technical vocational program, such as electronics or drafting, and the other half will be in a female traditional vocational program such as health, business, or homemaking.

The two subsamples will be compared on six clusters of variables; 1) family background history; 2) social support networks; 3) educational staff support and directives; 4) technical program perceptions and experiences; 5) attitudes: sex-role and work-related; and 6) internal factors: achievement motivation, fear of success, and locus of control.

The findings will be valuable in developing strategies for modifying the forces which currently operate to produce differential technical achievement on the basis of sex. The research will also help to identify in what ways significant others and the educational system promote or inhibit womens' involvement and achievement in technical areas. The findings from this study will therefore be valuable for purposes of both understanding the factors which cause educational inequity and helping to eradicate them.

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FACTORS INFLUENCING PERSISTENCE AND ACHIEVEMENT IN THE SCIENCES AND HEALTH PROFESSIONS BY BLACK HIGH SCHOOL AND COLLEGE WOMEN

Population: Black and White Women attending Senior High School and College

Award Period: 9/1/79-8/31/82

Amount: FY '79 $49,713
FY '80 48,788
FY '81 50,000
$147,501

Questionnaires will be used to identify student characteristics and external and internal social forces which contribute to women's achievement in the sciences.

The study is designed to determine three categories of factors which influence persistence and achievement in the sciences and health professions by black high school and college women. (1) Characteristics of black high school and college women in the southeast; (2) Existing and expected social forces operating to encourage or to discourage persistence and achievement; and (3) Internalized social forces and self concepts which operate to discourage persistence and achievement. Horner's theory of "fear of success" and Clance's theory of "imposter phenomenon" will be emphasized. Approximately 2000 black and white women, attending the senior year of high school through the senior year of college at six colleges and four high schools in the southeast, will be employed as subjects and statistical analyses will involve the Pearson correlation technique and multiple regression analyses using the Peabody Statistical Package and the Atlanta University Center's PDP/11 mini computer. Responses of women from at least two races, all socio-economic groups, and who attend a wide variety of educational institutions will have high generalizability, will stimulate research in Psychology, Sociology, and Education, and will serve as the information base for the development of strategies for counseling black women science majors to increase retention. Furthermore, the study of the characteristics of women who fail to continue in science can be used to develop a descriptive model of the "high-risk" student who, when identified, can be given extra counseling or can be matched up with a role model. Information on internalized social forces and self concepts can provide the bases for developing group therapy techniques for encouraging women to view themselves as achievers rather than as "imposters" among achievers and to welcome challenge and success rather than to flee from it.

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NIE Contact: Teaching & Learning Women's Research Team

INFORMAL BARRIERS TO WOMEN ENTERING ENGINEERING

Population: Freshman through senior college students

Award Period: 9/10/79 - 9/9/80 -

Amount: $36,900

Students will receive indepth interviews to determine the relationship between certain characteristices of the engineering program and social isolation, conflicting career/family plans and experiences of discrimination.

The proposed study is to develop a clearer understanding of the informal social processes which affect women who choose, or might choose, to enter engineering. Previous studies have identified some of these processes: social isolation; conflicting career/family plans; and experiences of discrimination, for example. In the present study, an effort will be made to discern the relationship between certain characteristics of the engineering program (e.g., percentage of women students) and these "informal social processes."

The subjects of the study will be college students (freshman through senior) at six different institutions across the country. One hundred twenty students (30 male engineers, 30 female engineers, 30 male non-engineers, and 30 female nonengineers) will be chosen randomly at each school. Each will be interviewed in depth concerning her/his background, relevant high school experiences, perceptions of engineers/engineering, future plans, and related topics. Statistical analyses will be based on comparisons of the four groups. The institutions will be chosen to contrast with each other on several dimensions likely to be related to differences in interpersonal climate (e.g., presence versus absence of programs especially designed for women in engineering).

The findings of this study should be useful to researchers and to administrators involved in efforts to increase the numbers of women entering technical fields. A clearer understanding of the relationship between institutional characteristics and social barriers to women should have direct implications for educational practice.

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SOCIAL SUPPORT AND EDUCATIONAL EQUITY FOR WOMEN

Population: Women in engineering schools

Award Period: 10/1/78-11/30/79

Amount: $24,337

This is research is on social support factors helping or hindering women students in engineering schools.

The basic hypothesis of this proposal is that one of the major barriers to educational equity for women is the absence of social support for those women choosing nontraditional goals. This hypothesis assumes that educational processes resulting in occupational segregation operate similarly to other cultural norms. If the hypothesis is correct, many program directions to encourage the formation of subgroup norms and social support groups for the nontraditional deviants are suggested. Primarly among these implications is aggregating a critical mass of women with similar goals and interests. The hypothesis will be examined by careful investigation of a currently occurring "natural experiment." There has been a dramatic increase in female enrollment in many engineering schools over the last few years. Assumptions involving social support and critical mass will be tested by comparing the attrition rate of women in schools with a high percentage/number of females in the class and those with a low percentage/number of females in the class over a period of years.

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ADVANCED STUDY ON RESEARCH IN SCIENCE EDUCATION FOR WOMEN FACULTY AT MINORITY INSTITUTIONS

Population: Women science and science education faculty in minority institutions of higher education

Award Period: 10/1/78 - 9/30/79

Amount: $43,765

This assistance project will address the many factors which affect the scholarly research and publication productivity of women faculty at minority institutions.

The target population is women in science education from the colleges which compose the Alabama Center for Higher Education. The project is designed to assist these women through the total research and dissemination process by their participation in two summer workshops at Purdue University and by conducting a research project on their home campuses and reporting their results at a national professional convention.

The specific objectives of the project are to: implement rigorous standards for educational research by upgrading the research and writing skills of project participants; provide professional sponsorship, mentorship, and collaborative arrangements between women faculty at minority institutions and experienced women researchers; enhance opportunities for dissemination and publication; establish a supportive network between two different types of institutions and increase the awareness in each of the problems of women, especially minority women, in academia.

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NIE Contact:
Dissemination and Improvement of Practice, Minorities and Women's Program

WOMEN IN MEDICAL ACADEMIA MODEL: A NATIONAL EXPERIMENT IN PLANNED CHANGE

Population: Women involved in providing medical education

Award Period: 11/1 /78-10/31/79

Amount: $75,000

The project provides training and a communications system for women who work in the area of medical education.

Through a broad, multifaceted national program to increase participation and recognition of women -- including minorities -- in medical education, the Professional Resources Research Center of the American Medical Women's Association will act as a "grassroots change agency" to initiate, coordinate, sustain, measure, and disseminate carefully planned educational reform.

Opportunities for postdoctoral advanced "in-service" study and research will be coordinated through: 1) a variety of advanced educational research training internships and preceptorships; 2) a comprehensive installation program on the "role" of the educational research specialists at the home institution; 3) workshops on educational equity tailored to medical school administrators and minority women in medical academia; and 4) practical "hands-on" experience through AMWA's acredited Continuing Medical Education offerings.

These training modules and experiences will emphasize: 1) early and sustained contact with women role model-mentors in educational research and related fields, as well as growth and development of the trainee as a role model and trainer; 2) acceptance of the role by the institution; 3) encouragement of local problem solving; and 4) creation of a formal and informal professional support network. An annual project newsletter will raise awareness of women in medical academia, provide them with valuable resources, highlight outstanding educational and research accomplishments of medical women and exemplary institutional training and employment programs for women, and strengthen support networks.

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SEX EQUITY IN CAREERS AND EMPLOYMENT

Abstracts in this section are organized to describe research on working women and factors associated with career aspirations, career decision making and achievement. The final three projects are designed to develop products such as a T.V. series or training materials to help individuals attain greater sex equity in employment.

EDUCATION AND THE DEVELOPMENT OF AN URBAN FEMALE LABOR FORCE

Populaton: girls and women

April 1, 1979-
March 31, 1981
Amount: $13,873

This study will examine the effect of educational attainment on labor force participation and wages of women in the period 1890-1940.

The study will examine the relationship of schooling and work for women and will identify the development of educational services for women during the period 1890-1940. The thesis of the study is that there is a general correspondence between the industrial requirements of particular communities and the types of educational programs developed within them. A sub thesis is that the occupations and educational attainment of women are related to class. Finally, the study will determine whether or not there was widespread wage discrimination against women or particular groups of women with educational attainment equivalent to men. Specific problems to be addressed in the study are 1) the historical development of special educational programs for women in the half century following 1890, 2) the relationship of education to occupational differentiation, and 3) the relationship between education and women's wages. Research methods include traditional historical research and a qualitative examination of evidence drawn from census, local school and federal government publications.

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NIE Contact:
Educational Policy and Organization, Law and Public Management

SEX ROLE ATTITUDES IN YOUNG WOMEN AND MEN

Population: National sample of women and men, ages 18-22

Award Period: 10/1/77-9/30/79

Amount: $193,442

Analysis of data, primarily from the Monitoring the Future's Project, will be completed to describe the sex role attitudes, early attainments, plans for education, occupations and families.

Specific analyses will focus on:

1) the dimensions underlying specific sex role attitudes, the interrelationships among such dimensions and their relationships with factors of background and personality; 2) the effects of sex role attitudes on subsequent educational, occupational, and family choices and attainments; 3) the implications which actual educational, occupational and family experiences may have for changes in individuals' sex role views and related attitudes; 4) national trends over time (1975 through 1979) in the attitudes and aspirations outlined above.

The Monitoring the Future project, designed to investigate drug use and attitudes among American youth, and to explore the ways in which those attitudes and behaviors are linked to a wide range of life style values, will be supplemented by a questionnaire on sex role preferences and educational and occupational aspirations to be distributed to 1000 seniors in 8 high schools. This will be added to data already available from annual nationally representative samples of 17,000 high school seniors since 1975 with follow-up surveys from each class sampled.

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NIE Contact: Teaching and Learning, Home, Community and Work

SEX ROLES & OCCUPATIONAL ASPIRATIONS

Population: High School Girls and Boys and their teachers

Award Period: 6/1/78-11/30/79

Amount: $50,000

Research will guide the development of a model to explain student occupational aspirations and strategies to influence student's occupational aspirations.

The starting point of this study is a concern for the limiting effects of ascribed roles on occupational aspirations and, therefore, occupational attainment in our society. A comprehensive causal model of students' occupational aspirations is being developed, taking into account such variables as the following: sex, race/ethnicity, IQ, socioeconomic status, teachers' attitudes and expectations, self-esteem, sex role stereotypes, occupational information, academic performance, and school context. Data are being collected on eighth, tenth, and twelfth grade students and their teachers in Austin, Texas. Using the research findings, intervention strategies to influence the development of occupational aspirations of students will be developed.

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NIE Contact:

Teaching & Learning Women's Research Team

SEX DIFFERENCES IN THE ACHIEVEMENT-AFFILIATION CONFLICT

Population: Students in undergraduate higher ed. institutions

Award Period: 6/20/74-10/31/75 But not completed as of 3/79.

Amount: $31,466

This experimental research is examining male and female needs for achievement and aspiration in relation to their success.

This research is concerned with psychological barriers to achievement for women in our society. It involves an experimental test of a theory of intellectual aspiration and achievement which states that achievement motivation and performance will decline following experimentally produced avoidance of success. The success avoidance is elicited by exposure to success which is coupled with affiliation loss. The prediction is that a decline in performance will be greatest in individuals who have strong needs for both achievement and affiliation. Because of the high salience of affiliation in the traditional feminine sex role, it is expected that in general, when compared to men, women should show a greater decline in achievement following the experimental success-avoidance condition. Women whose sex-role concepts are most traditional, e.g., affiliation oriented, should show the greatest decline. Since reliable and valid measures of achievement motivation are not available, the present research requires development of a measure in this area. The experimental subjects are college undergraduates.

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THE EFFECT OF SEX AND RACE SEGREGATION ON SUBSEQUENT JOBS

Population: National Work Force

Award Period: Part of R&D Center Contact

The project studies types of occupations, sex and racial segregation by field of work, income, and prior segregated or integrated educational experience.

The research is attempting to determine structural and process determinants of occupational choices, and outcomes, other than educational attainment which may be attributable to sex and/or race segregation.

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THE INFLUENCE OF SEX ROLES AND COGNITIVE STYLES ON THE CAREER DECISION-MAKING OF COLLEGE MEN AND WOMEN

Population: Undergrad. college students, matched non-college students

Award Period: 10/1/76-4/30/79

Amount: $143,011

This project is conducting research on the effects of sex role attitudes and cognitive style on career decision making and developing guidelines for career decision-making training programs.

The way in which women and men perceive, interpret, and respond to their environment may more directly influence their career decision-making than sex role attitudes. However, because sex role attitudes are changing, they may have a greater influence on career decision-making than gender, that is, being female or male.

College men and women, at each class level (freshmen through seniors), will be administered three sex role instruments, three cognitive style instruments, and an instrument measuring career decision-making stages. These students will be retested one year leater. Retested subjects will be compared to respective classes of initially tested subjects on the same campus and on other campuses. Finally, non-college students, comparable in age and recency of high school graduation will be tested, and compared with the college student samples. These comparisons will determine the degree to which the findings represent developmental phenomena; the degree to which the findings can be generalized to other college student samples; and the degree to which they can be generalized to non-college student samples. Structured interviews will be conducted with selected students according to test score patterns to determine past career-relevant experiences and experiences during the interval between initial testing and retesting. These data, combined with changes in test scores over time, will provide the basis for developing the guidelines and outlines for career decision-making programs.

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NIE Contact:
Teaching & Learning, Home, Community and Work

SEX ROLE VALUES IN THE CAREER DECISION-MAKING PROCESS

Population: Grade 11 high school students

Award Period: 11/1/76-9/31/79

Amount: $132,148

This research is intended to provide a defintion of the domain of values related to sex roles and to examine the values held by high school students for important aspects of occupational and sex roles.

Career eduction and career decision-making models have typically included two broad areas: 1) knowledge about occupations and education; and 2) values related to occupations. This view of the content of career decision-making has been challenged by data on the occupational segregation of women and the different career patterns found for women and men. It is argued that a third area is necessary for a valid theory of career decision-making: values related to sex roles in American culture.

This project will determine whether there is a set of sex-role related values that can be defined and among which individuals can discriminate. High school students in grade 11 will be individually interviewed to develop and test the set of sex-role related values. Subgroups of the population (groups classified by sex, socio-cultural background and economic status) will be asked to rank and rate both sex-role related and occupationally related values. Comparisons of the subgroups will show values held in common, as well as the overlap between the value sets. The "product" of the research will be set of terms, operationally defined, which can be used in further research and also directly applied to the development of new materials and instruments in career education programs. The clarification of values related to both sex roles and occupational roles is a necessary precondition to a valid theory of career decision-making for both women and men.

Carol K. Tittle and Deanna Chitayat
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NIE Contact:
Teaching and Learning, Home, Community & Work

HIGH SCHOOL EXPERIENCE IN THE ATTAINMENT PROCESS OF NON-COLLEGE BOYS AND GIRLS: WHEN AND WHY DO THEIR PATHS DIVERGE?

Population: Young men and women who do not attend college

Award Period: 10/1/78-9/30/79

Amount: $48,761

This research analyses is based on the 10 year National Longitudinal Surveys (NLS) of young men and women.

Although much research attention is focused on the college-bound, enrolled, or graduated, two-thirds of youth do not attend college. The substantial variation in the lives of these young persons is largely unexplored and unexplained, as are the different paths of men and women. High school should be a most critical period for these youths. For many it is the end of formal schooling. It has also been found to be a period in which major sex differences in aspirations and goals develop. Secondary analyses of the NLS will address the following questions: What experiences during the high school years affect young men and women so differently and contribute to their different life patterns? When do their paths begin to diverge? How do differing socioeconomic backgrounds, abilities, and choices affect goals, and how do these goals affect the probability of school graduation, the probability of obtaining training after high school; the timing of entry into the labor force, and later occupation, earnings and wages of non-college boys and girls?

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(202-223-1950)

NIE Contact:
Teaching & learning, Women's Research Team

WHY WOMEN CONTRIBUTE LESS TO THE ARTS & SCIENCES

Population: Female and male 9th and 12th grade students, and high school alumni four years after graduation

Award Period: 11/1/79-12/31/80

Amount: $47,270

A diagnostic instrument will be developed to assess impediments to women's motivations for career and academic achievement.

Starting with the assuption that women's lesser career contribution to the humanities, arts, and sciences is related to their motivation, this study aims to improve our understanding of the factors in self and environment which inhibit girls' & women's motivation toward success in careers and academics. The relative influence of nine variables identified as important in the research literature will be examined; the factors are home-career conflict, sex-role orientation, risk-taking behavior, academic self-esteem, vicarious achievement motivation, fear of success, discrimination in community/work; resources in the community/work, and family socialization.

A major objective of the project is the development of a measure for diagnostic purposes which will permit teachers and counselors to make an early identification of specific stumbling blocks to female career and achievement motivation, so that precise change strategies can be recommended.

Helen Farmer,
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University of Illinois
Urbana, Il. 61801
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NIE Contact:

Teaching & Learning, Women's Team

"THE VOCATIONAL EDUCATION STUDY"

Population:	Administrators, Faculty and Students Participating in Vocational Education Programs Assisted by the Federal Government	Award Period:	6/01/77-12/1/81
		Amount:	$4,000,000

This study, mandated by the Congress, is being conducted by the National Institute of Education in order to provide information that will be useful to the Congress for the reauthorization of the Vocational Education Act.

The Education Amendments of 1976 (P.L. 94-482) charge the National Institute of Education with undertaking "a thorough evaluation and study of vocational education programs..." The amendments further direct that the effort shall include:

- o A study of the distribution of vocational education funds in terms of services, occupations, target populations, enrollments, and governmental levels and what such distribution should be in order to meet the greatest human resource needs for the next ten years;
- o An examination of how to achieve compliance with, and enforcement of, the provisions of applicable laws of the United States;
- o An analysis of the means of assessing program quality and effectiveness; and
- o A review and evaluation of programs funded under the "Consumer and Homemaking Education" provisions of the law.

In keeping with these mandates the Institute has mounted a series of eleven separate research projects, six to be conducted externally by contract and five to be conducted by Institute staff. While none of these studies is focused soley upon issues of sex equity in vocational education, all of them deal with varying degrees with such concerns. Moreover, because the Education Amendments of 1976 included several provisions designed to promote the achievement of sex equity in vocational education, several of these projects devote a great deal of attention to state and local performance in this regard.

The legislation establishing the vocational Education Study required that an interim report is to be made to the President and the Congress by September 30, 1980, and a final report no later than September 30, 1981, at which time the final reports of the several individual projects should also be available.

NIE Contact: Educational Policy and Organization, Vocational Education Study Team

NATIONAL COMMISSION ON WORKING WOMEN

Population: Eighty percent of women who work in low status, low salary blue or pink collar occupations.

Award Period: 9/1/77-9/1/80

Amount: $525,000

This non-governmental Commission focuses on the issues of concern to the conditions of women workers concetrated in low-status, low-paying jobs in service industries, clerical occupations, retail stores, factories and plants.

The twenty-six commissioners represent grass-roots women from female-intensive occupations, Congress, corporations, labor, media, and the educational research community. Among the Commissioners are Elizabeth Koontz, Chair of the Commission and Assist. State Superintendent of North Carolina Department of Public Instruction, Congresswoman Barbara Mikulski, (D-Md.), and former Secretary of Labor, Willard Wirtz, Chairman, Board of Trustees, National Manpower Institute (NMI).

Working women have no particular network to which they turn for help, nor are they in touch with policy-makers. The National Commission on Working Women aims to help end this neglect by: 1) Exploring and publicizing the problems and needs of working women concentrated in the above-mentioned industries and occupations; conducting surveys and regional forums; 2) Designing and carrying out action programs to help solve these problems in innovative ways; 3) Raising public awareness about the status of these women; 4) Developing policy recommendations concerning the conditions of working women.

Joan Goodin, Executive Director
National Commission on Working Women
Center for Women and Work
1211 Connecticut Avenue N.W.
Washington, D.C. 20036
(202-466-6770)

NIE Contact:
Ed Policy & Organizations

TELEVISION (FREESTYLE) CAREER AWARENESS PROJECT

Population: Children grade 4-6 their parents and teachers

Award Period: 6/1/76 5/31/79

Amount: 4,180,000

This project developed and is currently evaluating a 13 part series of 30 minute children's T.V. shows to reduce sex stereotyping in career aspirations.

This series and supporting instructional materials and programs is intended to reduce the limiting effect that sex roles may have on the development of interests and preferences. Many experts believe that adult's career choices are often restricted because of stereotyped roles, especially those based on sex, they learn while young. For example, a 10-year-old girl of Hispanic origin may wish to join her brother in building model airplanes but does not do so because it seems an inappropriate activity for girls. However, if such an interest were encouraged, it might influence her eventually to consider careers in such diverse fields mechanical engineering or aeronautical design.

This development and evaluation work was performed by the Southern California Consortium: public television station KCET of Los Angeles, the Los Angeles City Schools, the University of Southern California, East Los Angeles College, the Office of the Los Angeles County Superintendent of Schools, and the Chicago-based Science Research Associates.

Norton Wright
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4401 Sunset Blvd.
Los Angeles, CA 90027
(213-667-9267)

NIE Contact:
Education Policy and Organization

WOMEN AND THEIR PREPARATION FOR PROFESSIONAL AND MANAGERIAL CAREERS

Population: Adult Women

Award Period: 9/78-9/79
Amount: $2,662

This publication describes the features of programs that prepare adult women to enter, reenter, and be successful in professional and managerial occupations.

Director
ERIC Clearinghouse on Adult,
Career, and Vocational Education
Ohio State University
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NIE Contact:
Dissemination and Improvement of Practice

SEX EQUITY IN ELEMENTARY AND SECONDARY SCHOOL PRACTICES

After the initial two abstracts which cover a large population span, the projects were arranged chronologically in terms of the age of the school groups studied.

A CONCEPTUAL MODEL FOR THE ANALYSIS OF SEX-ROLE LEARNING AND SEX DISCRIMINATION IN EDUCATION

Population: General

Award Period: 6/27/74-1/31/78

Amount: $145,050

This project resulted in an extensive review of the research literature and development of models to explain sex discrimination in education.

Phase I of the study involved a review and synthesis of the literature on: a) processes involved in sex role learning, emphasizing works that link sex role learning to sex discrimination in the educational system, b) conceptual analyses of sex discrimination as a process, and c) major relevant theoretical studies of other types of discrimination (such as race) that offer insights into discrimination as a general phenomenon. Phase II of the study presented a conceptual model of the process of sex discrimination. Components of the model are a) social and psychological processes fostering internal psychological-cognitive structures in individuals' minds that predispose them toward sex discrimination and b) social system phenomena, both at the level of the educational system and the larger society, that promote sex discrimination in the educational system. Links between these two component areas are explored. Critical intervention points in the sex discrimination process are specified. Phase III presents a research design for empirically testing the model.

Constantina Safilios-Rothschild
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NIE Contact:

Teaching & Learning, Research Team

THE CONTRIBUTION OF WOMEN'S THOUGHT TO DEVELOPMENTAL THEORY; THE ELIMINATION OF SEX BIAS IN MORAL DEVELOPMENT RESEARCH AND EDUCATION

Population: males and females aged 6-75

Award Period: 9/79-9/80
Amount: $60,000

This project will develop criteria and instruments to assess women's moral judgment.

This project will work toward constructing a psychological theory of human development which is equitable in its representation of male and female perspectives. The specific area of investigation is moral development, where longitudinal research on adolescent males has served as the basis for a variety of nation-wide efforts to foster moral development through education. Since observations about sex differences pervade the theoretical and research literature on human development (e.g., Piaget, Erikson, Freud, Kohlberg), psychologists have tended "to regard male behavior as the norm and female behavior as some kind of deviation from that norm." (McClelland, 1975, p. 81).

Women's judgment has been found (Gilligan, 1977 and Belenky, 1978) to focus on conflicting responsibilities rather than competing rights. This responsibility orientation is largely ignored in Kohlberg's manuals for scoring moral judgments. The investigators will construct a manual for scoring this responsibility orientation. The manual will be developed from cross-sectional data from 144 males and females (aged 6-75) who were interviewed on an expanded series of moral dilemmas encompassing situations of competing responsibilities as well as the standard Kohlberg dilemmas of conflicting rights. This research should contribute to the rectification of inequities in current educational practice based on Kohlberg's theory. It also is intended as a model for the correction of sex bias in psychological theory and research in human development.

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Cambridge MA 02138
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NIE Contract:
Teaching and Learning, Women's Research Team

INSTRUCTIONAL BIAS IN SPECIAL EDUCATION

Population: Learning disabled students in self-contained elementary schools

Award Period: 1977-1980
Amount: Embedded in Larger Award to Instituion

Building on previous work that showed elementary students receive more reading instruction if they are girls and math if they are boys, the current work seeks to examine the differences in instruction to girls and boys in learning disabilities classrooms.

This research uses two years of observational data in learning disabilities classrooms to examine whether girls and boys or blacks and whites receive different amounts of reading instruction. Reading instruction means time devoted by the student to direct reading tasks, amount of teacher contact during reading, amount of aide contact during reading, and the number of pages of reading assigned. Preliminary results indicate that boys and girls do not differ in their entering ability (IQ, reading level, or type of disability) but may receive substantially different reading instruction; race has not yet been examined. Unlike previous research that indicated girls receive more reading instruction and boys receive more math instruction, it is possible that boys in learning disabilities classes receive the majority of instruction of all types because they constitute such a strong majority of the special education population. The implication of such differing treatment patterns for adjustment to mainstreaming will be explored.

Principal Investigator:
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(412-624-4806)

NIE Contract:
Teaching and Learning, Cognitive Studies Team

TWO-WAY SOCIALIZATION PROCESSES IN THE CLASSROOM

Population: 6th grade teachers and their students

Award Period: 6/27/73-8/31/75-extended

Amount: $87,815

This study is examining the interaction patterns of teachers and students relating to sex and race.

The research site is the elementary classroom; the local concern the two-way influence process in which the teachers' verbal reinforcement behaviors are influenced by individual differences among children and, in turn, affect children's expectancies, feelings of control over the environment, attitudes towards school, and academic performances.

The major objectives are to study: the effect of teacher behavior on pupil achievement and feelings of control; how pupil characteristics such as sex and race affect teacher's differential behavior toward different pupils; how the effect of teachers' behavior on pupils varies according to the characteristics of the pupils; how changes in pupils' attitudes and expectancies mediate their changes in academic performance.

The sample consists of 34 teachers and 824 pupils in sixth grade classes in a large metropolitan area. Achievement and personality tests were administered to the pupils at three periods, permitting the study of change during the class year. Teacher-pupil interaction with specific individual pupils was observed and coded for 372 of the children--12 in each of 31 of the 34 classes. The twelve pupils were selected because they represented high, moderate, and low positions on internal and external control. Because the sample includes both white and black boys and girls the effect of a teacher's racial and gender attitudes on the dynamics of teacher-pupil interaction can also be explored.

In addition to the theoretical issues it explores, the study can highlight ways in which teacher behaviors and pupils' characteristics may interact to hinder rather than facilitate a pupil's learning. Its results can therefore carry critical implications for teacher training and educational change programs.

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Ann Arbor, Michigan 48108
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NIE Contact:

Teaching & Learning, Teaching & Instruction

INTERPERSONAL BEHAVIOR IN AN INTERRACIAL SCHOOL

Population: Children in an interracial middle school

Award Period: 9/1/78-8/3/79

Amount: $19,213

Sex will be a major variable studied in observing the classroom behavior of these children to determine what shapes their social environment.

The proposed study will record the interpersonal behavior patterns of black and white girls and boys as they cope with and adjust to each other's presence over the course of their first year in an interracial middle school. A modified version of Spaulding's behavioral coding system, CASES, will be used to code student classroom behaviors into 13 diferent categories and also to note the race- and sex-identities of the children involved. It has been suggested that black females and white males in desegregated settings often must cope with social problems not shared by white females and black males. This issue will be explored by examining, not only the frequency, but also the prevailing types of interactions among the four race/sex groups. Changes in behavior patterns over the course of the year will also be assessed. The behavioral data will be supplemented by interviews designed to elicit the children's own perceptions of their intergroup experiences and relationships.

H. Andrew Sagar & Janet W. Schofield
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NIE Contact:

Ed Policy & Organization, Desegregation Studies Team

MULTICULTURAL INSERVICE TRAINING PROGRAM

Population: Teachers of grades K-12 in Washington State

Award Period: 9/15-77-11/30/79*

Amount: $403,485

*Additional work is proposed to 12/1/84

A comprehensive inservice training process will be developed to eliminate sex and race bias in classroom teaching.

This program is designed to help teachers and students view and understand each other from the other person's frame of reference. It is based on the promise that as teachers try to understand how the individual students see themselves from their own sex, race or ethnic frame of reference they will be able to help students also view each other from their peers' multi-cultural perspectives. The following five teacher training modules will be developed and pilot tested in Washington State:

Teacher Effectiveness Skills in Multicultural Education,
Content Skills in Multicultural Education,
Curriculum Application in Multicultural Education,
Classroom Management in Multicultural Education, and
Learning Management in Multicultural Education

Some of the work on this project is subcontracted to the Washington Education Association. By increasing individual's understanding of each others unique multi-cultural perspectives it is believed that empathy and positive interactions among these individuals will increase.

George Banks,
Northwest Regional Educational Laboratory
Washington Education Association
910-5th Avenue
Seattle, WA 98104
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NIE Contact:
Teaching and Learning Instruction,

SEX BIAS IN TESTING: A GUIDE FOR TITLE IX COORDINATORS

Population: Title IX Coordinators, school board members & teachers

Award Period: 1/1/79-1/1/80

Amount: $1,269

This guide will be based on a review of the research on sex bias in testing.

The final monoagraph is intended to be 6 pages long and easy for practitioners such as Title IX coordinators, school board members and teachers to use to reduce sex bias in testing.

Carol Tittle for
Donald Melville, Director
ERIC Clearinghouse on
Tests, Measurement,
Rosedale Road
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NIE Contact:

Dissem. & Improvement of Practice

WOMEN WITH SPECIAL NEEDS

(Pregnant Teenagers, Minorities, Incarcerated, Rural)

The abstracts in this section are organized in the above listed topical order.

STUDY OF HOW SCHOOLS RESPOND TO PREGNANCY AND PARETHOOD AMONG THE STUDENT BODY

Population: Pregnant junior and senior high school students

Award Period: 11/1/79-4/31/81

Amount: $200,000

This study is designed to learn how schools respond to pregnancy and parenthood among the student body.

Specific research objectives are to: understand how pregnant junior and senior high students decide whether to drop out of school, to marry, or to continue in school without interruption; assess the role that schools play in decisions of pregnant girls to continue in school; determine whether there are settings which better enable youth to remain in school and thereby help reduce the long-term economic damage of early pregnancy/parenthood.

Gail Zellman
Rand Corporation
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Santa Monica, CA
(213-393-0411)

NIE Contact:
Ed. Policy & Organization

SURVEY OF TEACHERS OF SEX EDUCATION

Population: 580 High school teachers of sex education

Award Period: 1/1/79-12/31/79

This survey will describe the nature of high school sex education courses and teachers. in the U.S.

The survey will poll approximately 580 teachers of sex educaton identified in an earlier survey of high schools. It will ask questions about courses, instructional goals, teacher background and preparation, and attitudes.

Lana Muraskin
Inhouse NIE Research

NIE Contact:
Ed. Policy & Organization

EDUCATION OF NON-HIGH SCHOOL GRADUATES AFTER THE BIRTH OF A FIRST CHILD

Population: Low socioeconomic class minority women who have been pregnant

Award Period: 10/1/78-9/30/79

Amount: $25,825

This is an analysis of existing data from a New York City study to identify factors which differentiate women who continue high school after a pregnancy and live birth from those who do not.

The goal of the proposed research is to identify factors which differentiate women who continue high school after a pregnancy and live birth from those who do not. This study will analyze data gathered during home interviews with approximately 175 low socioeconomic class minority women who were non-high school graduates three years earlier when they became pregnant with their first child. The sampling design controls for initial years of schooling and occurrence of a first birth. Respondents could be designated at high risk for eventual low educational and occupational attainment. An understanding of the factors which enable some women in this high risk category to continue their educations has implications for the development of counseling programs designed to prevent them from becoming pregnant dropouts.

Katherine F. Darabi
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NIE Contact: Education Policy and Organization

DEVELOPMENT OF A GUIDE FOR RESEARCH ON ASIAN-PACIFIC WOMEN: KOREA AND JAPAN

Population: Asian and Asian-American women

Award Period: 3/15/79-3/14/80

Amount: $27,367

This project will produce a reference guide to primary and secondary sources of studies on Japanese and Korean women.

The guide will be organized so that the data, document references and hypotheses about Japanese and Korean women will be useful to educators, researchers, and policy makers.

The guide will consist of indexes including author-title and various topical and data quality control indexes and a series of source profiles containing descriptive, analytical, and quality control information for each document. Analytical information will include culture, ethnic group, time, place covered, gender, role dimensions, and life stage indication. Quality control information will include author's name, birth/death dates, role, discipline, and national or ethnic affiliation. Annotations will include information on findings, hypotheses tested, theoretical framework underlying the study, the relationship among the variables in the hypotheses, and research methodology.

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NIE Contact:
Teaching & Learning, Women's Research Team

THE CULTURAL INTEGRATION OF ASIAN-AMERICAN PROFESSIONAL WOMEN

Population: Asian-American women in the U.S.

Award Period: 10/1/78-5/31/80

Amount: $48,471

Asian-American women in Washington, D.C. and San Francisco will be surveyed to identify important factors in their career development.

This study looks at systems of interrelationships among the ethnic, sexual, and interracial identity components and verbal and nonverbal communications patterns of Asian-American professional women in their career development. Data will be collected by questionnaire and interview on approximately 300 women in the Washington, D.C. and San Francisco areas. Results of the study will be submitted to various journals.

Esther Chow & Joanne Yamauchi
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NIE Contact:
Teaching & Learning, Women's Research Team

CONFERENCE ON THE EDUCATIONAL AND OCCUPATIONAL NEEDS OF WHITE ETHNIC WOMEN

Population: White ethnic women

Award Period: 4/10/78-9/30/79

Amount: $77,401

Research papers were prepared for this small working conference to plan an R&D agenda on educational and occupational concerns of white ethnic women.

This conference is the last of a five part series of minority women's conferences.

This conference brought together about 30 women researchers, policy makers, practitioners and community organizers from white ethnic (including Italian, Greek, Jewish, Irish and Slavic) communities throughout the country. Nine papers were commissioned on educational, occupational, health, housing, community and family issues. These papers served as a catalyst for discussions.

A two volume compendium of conference papers and recommendations for research and action on issues relating to white ethnic women will be shared with NIE, other agencies, interested organizations and individuals.

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NIE Contact:
Teaching & Learning, Women's Research Team

IS THERE A WAY OUT? AN ANALYSIS OF EDUCATIONAL OCCUPATIONAL NEEDS OF WOMEN SENTENCED TO SAN FRANCISCO COUNTY JAIL

Population: Women incarcerates in and released from the county jail.

Award Period: 11/1/78-10/31/79

Amount: $26,870

This is a small scale study of women and staff in and out of the San Francisco Co. Jail.

The goals of this study are to determine: 1) the educational and other needs of women in jail, and how best to address them, 2) the educational and vocational opportunties existing in the jail and in the surrounding community and their adequacy, and 3) the availability and willingness of community-resource providers to address themselves to these women's needs. The study makes use of both qualitative techniques (open-ended, in-depth interviews, participant observation) and quantitative research techniques (structured interviews with data subjected to statistical analysis). All willing women in jail are being interviewed within 30 days of release to find out about their participation in jail programs, their post-release plans, and prior life experiences. Follow-up interviews are being conducted in the month after release regarding problems of re-entry. Existing programs in the jail, and community programs relevant to the subject of this study will be surveyed.

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NIE Contact:
Teaching & Learning, Women's Research Team

WOMEN, VOCATIONAL EDUCATION AND JOBS IN RURAL AREAS: THE EFFECTS OF FARM LIFE ON WOMEN'S OPPORTUNITIES

Population: Farm Women

Award Period: 7/30/79 - 2/28/80

Amount: $2000

This paper will examine the effect of life in agriculture-based communities on women's opportunities in nontraditional vocational education and employment. It will also offer policy recommendations that might serve to improve women's chances.

Dr. Frances Hill
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NIE: Education Policy & Organization
Vocational Education Study

WOMEN, VOCATIONAL EDUCATION AND JOBS IN RURAL AREAS: THE IMPACT OF RURAL VOLUES AND TRADITIONS

Population: Rural Southeast women

Award Period: 9/30/79 - 2/29/80

Amount: $2,000

This paper will analyze the impact of rural values and traditions on the ability of women to enter non-traditional vocational education programs and to subsequently get non-traditional jobs. The paper will draw an existing research focusing on the southeastern states. The paper will also present policy recommendations for how to improve women's vocational opportunities in rural areas.

Roberta Carney
Mary Lou Taylor
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NIE: Education Policy & Organization, Vocational Education Study

WOMEN VOCATIONAL EDUCATION AND JOBS IN RURAL AREAS: THE EFFECTS OF VOCATIONAL EDUCATION DELIVERY SYSTEMS

Population: Rural Women

Award Period: 9/30/79-2/29/80

Amount: $2500

This paper will look at the effects of educational values, vocational education programs and administrators on female participation in non-traditional vocational education programs and jobs. The study will draw heavily on a national survey of women and girls. It will also offer policy recommendations that may improve women's opportunities in rural areas.

Dr. Faithe Dunne
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NIE: Education Policy and Organization
Vocational Education Study

WOMEN, VOCATIONAL EDUCATION AND JOBS IN RURAL AREAS: THE EFFECTS OF THE STRUCTURE OF THE LABOR MARKET ON WOMEN'S OPPORTUNITIES IN VOCATIONAL EDUCATION

Population: Rural Women

Award Period: 9/30/79 - 2/29/80

Amount: $2,200

This paper will analyze the effects of the jobs available in rural areas and attitudes of business leaders toward female participation in non-traditional vocational education and employment. It will also offer policy recommendations that might lead to improvements.

Ptarmigan Teal
Center for Rural Communities
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NIE: Education Policy & Organization, Vocational Education Study

WOMEN EDUCATORS

The abstracts in this section are arranged to report on research concerned with the roles of women as: child care staff, teachers and administrators, school board members, community representatives, and R&D personnel.

CAREER DEVELOPMENT POTENTIAL & CONTENT VALIDITY OF A COMPETENCY BASED CREDENTIAL FOR CHILD CARE STAFF

Population: Female child care staff

Award Period: 10/1/77-9/30/79

Amount: $85,805

This research is designed to validate the child development credential assessment.

The competency based Child Development Associate, CDA credential appears to offer the opportunity for upward employment mobility to women who dominate the teaching and child care professions. There is a particular need to investigate whether competencies required for the CDA are generalizable and lead to success in other jobs in a career ladder.

Classroom staff who have received the CDA credential will be compared with staff who have not on three measures: a written assessment of knowledge related to competencies, a rating of job performance by their supervisors, and a questionnaire on their work and life history. Data from the comparisions will be used to analyze the relationship of the CDA competencies to knowledge required for a college degree in Child Development, and to an external criterion of job success. Personality and opportunity factors which may contribute to success will also be analyzed. A content analysis of competency lists will also be used to delineate possible career ladders incorporating the CDA.

The research has general implications for career development, by examining one aspect of career development for women and by examining the career development potential of competency-based job assessments.

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NIE Contact:
Teaching & Learning, HCW

TEACHERS AS PERSONS: CASE STUDIES OF THE LIVES OF WOMEN TEACHERS

Population: Female elementary and secondary public school teachers

Award Period: 3/1/80 - 9/30/80

Amount: FY '79 $62,788
FY '80 $50,178
Total- $112,966

The daily interactions and career commitments of teachers inside and outside the school context will be examined.

The teacher role is only one of several roles to which the individual may be commited, and to the extent that one of these roles is more salient, less commitment will be made to the teaching role. While the teaching role is affected by and affects commitment to other roles, the teacher must also interact on a day-to-day basis within the broader organizational context of the school. This, too, affects and directs the teacher's activity within and without the school. The constraining, conflictual, problematic nature of the teacher role within the organizational complexity of the school and the strains of nonoccupational commitments affect the teacher's self-concept. A positive self-concept is particularly difficult for the female teacher who is more likely to suffer commitment ambiguity in an everyday world where men maintain power positions.

Data gathering for this project will employ a combination of methods-field observations, formal and informal interviews, diaries, and examination of relevant records and documents. Intensive case studies (N=8) of public school female teachers in elementary and secondary schools will be completed. This intensive analysis of the everyday lives of women teachers is proposed so that effective, useful, in-service programs can be developed to meet their needs.

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NIE Contact: Teaching and Learning, Teaching and Instruction

SEXUAL ASYMMETRY IN EDUCATION EMPLOYMENT: MALE MANAGER AND FEMALE TEACHER

Population: Teachers and administrators

Award Period: 1/1/79-12/31/80

Amount: $108,317

Research will use historical and economic analysis to understand the development of asymmetry in school employment.

Public school teaching (especially in elementary schools) is almost exclusively a job for women, whereas top jobs in eductional administration are held almost exclusively by men. What are the causes and consequences of this sexual asymmetry, and how can its dysfunctions be remedied?

This project will examine the following possible explanations for the feminization of teaching: 1) the supply and demand for labor, 2) the social definitions of women's role, especially in the Victorian era when women's "nurturant" qualities were considered ideal for teaching, which in turn was thought ideal preparation for marriage, and 3) the system of social control in educational employment and the willingness of men and women school employees to accept control. Throughout, the link between schools and their social and economic environment will be analyzed.

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NIE Contact:

Education Policy and Organization, Education Organizations and Local Communities

WOMEN AND MINORITIES IN THE PRINCIPALSHIP

Population: Women and Minority Principals

Award Period: 9/79 - 5/80

Amount: $24,643

This is a review and synthesis of statistics and research on women and minorities in the school principalship. Both groups are underrepresented in the population of school building administrators, compared with their numbers in the teaching force and in the society, and the reasons for this and the chances for change are both of interest.

In considering new research on women and minority school administrators, NIE staff found little up to date data and few adequate syntheses of what is known already about their situation. The present project will result in fresh reviews of statistics on both groups in the principalship, and of scientific research on the subject. The final report will include recommendations for additional research to fill any gaps found in the reviews.

Key topics the contractor will center the review on include...

- o Data on people in the job--past and present, types of district, geography, ethnic group
- o Data on career paths--sequences of jobs
- o The applicant pool, and procedures used in the selection of principals
- o General research and knowledge about women and minorities entering the profession
- o Problems identified as unique to minority group members and women, particularly minority women.

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NIE Contact:
School Management and Organization Studies Team

MEN & WOMEN ON SCHOOL BOARDS: SEX & SCHOOL BOARD ACTIVITY

Population: Men and women on local school boards

Award Period: 9/15/77-extended

Amount: $44,948

This small scale study of members of 37 New Jersey school boards will provide insights on how sex composition may affect the structure and functioning of similar policy making bodies.

School board members have been interviewed regarding personal status characteristics and sex-role conceptions; school board activity and attitudes on educational issues, particularly those relating to Title IX; self-conceptions of role on the school board; sociometric choices of other members as knowledgeable, competent, influential, liked, agreed with on issues; and board actions taken in a variety of areas relating to Title IX. Interviews are supplemented by records and newspaper accounts of board activities. Sample selection controls for median income and education of the district, district enrollment, type of school system operated, board size, and labor force characteristics of women in the district. Preliminary findings show a gap between individual attitudes and board activity. Although larger proportions of women than of men support sexual equality in education, the sex composition of a board has little relationship to implementation of sexual equality. Analysis suggests that the roles women play on school boards may operate to inhibit the effective translation of personal attitudes into action.

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NIE Contact:
Teaching & Learning
Women's Research Team

"URBAN SCHOOL ORGANIZATIONS, AND THE AMERICAN WORKING CLASS: AN HISTORICAL ANALYSIS"

Population: Working class women and men and their Institutions, churches, labor unions, and political parties

Award Period: 9/15/78-9/14/81

Amount: $291,165

This study is concerned with historical research to understand the role of the working class in public education.

This research will focus on four periods representing important rapid growth and industrial expansion (the 1870's): the era of migration (1905-1915), the Depression era, and the current era of urban decline, and three cities.

The three cities-Atlanta, Chicago, and San Francisco faced common problems of immigration and economic development and decline but differed in the relative strength of their working class institutions. Churches are strongest in Atlanta, the political party in Chicago, and unions in San Francisco.

The research will trace major changes in the structure in the organization and core processes (e.g., staffing patterns) of schools and the strength of working-class organizations, and it will identify differences in the influence of working-class women and men on educational issues in each city during each historical period. Analyses will focus around issues that were salient at the time, such as compulsory education school centralization and professionalization of education

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NIE Contract:

Education Policy and Organization, Education Organizations and Local Communities

STATISTICAL INDICATORS OF THE STATUS OF WOMEN AND MINORITY SUB-GROUPS IN EDUCATIONAL R&D PROFESSIONS

Population: women and minorities as undergraduate & graduate students and in early stages of their careers

Award Period: 9/1/78-9/30/79

Amount: $19,996

This project summarizes information from available data banks and reports to present policy relevant information on the status of women and minorities in Educational R&D and related fields.

This project will develop reports to be presented at NIE sponsored conferences. The reports will be developed from searches of relevant computer data bases and reactions of federal and non-federal conference participants.

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NIE Contact:
Dissem. & Improvement of Practice

DESIGN FOR ASSESSMENT OF MINORITY AND WOMEN'S PROJECTS

Population: Doctoral, post doctoral and experienced professional participants in NIE sponsored projects to increase the participation of minorities and women in ed. R&D.

Award Period: January, 1979-1980
Amount: $138,000

This design is for the evaluation of projects funded by NIE's program to increase the participation of minorities and women in educational research.

A woman-owned minority firm, is responsible for gathering and analyzing preliminary data designed to facilitate understanding of the contextual influences on program activities and developing an evaluation system that will serve to increase the knowledge of process and intermediate outcomes for policy makers, programatically-related personnel and others interested in the problem of increasing the participation of women and minorities in research.

A case study approach and accompanying literature review will be used to: identify barriers to the participation of women and minorities in educational R&D (and provide information on the extent to which projects act to reduce and remove those barriers); provide information on how the projects facilitate career advancement; identify and analyze the extent to which projects have the potential for being institutionalized; identify constraints or limitations in implementing the projects; and, identify models that can be replicated and adapted by others interested in increasing minority group and women's participation in educational R&D. Site visits will be conducted to: test procedures for validating project data reported to the sponsor; collect detailed information describing project operations; determine what record information is available; determine how accessible record information is; identify the most appropriate and fruitful interview respondents; and experiment with various data collection instruments and methodologies.

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NIE Contact:

Dissemination
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WOMEN IN HIGHER AND CONTINUING EDUCATION

The many project abstracts in this section are organized into research projects and R&D personnel assistance projects. The research projects focus on equity issues in institutions of higher education, their female students, women's studies programs, female faculty and administrators. The R&D personnel assistance projects (all of which are funded by the DIP, Minorities and Women's Program), are listed in the following order. Those which primarily focus on Asian-Americans, Black, Hispanic and Native American R&D students precede the many projects intended for individuals interested in educational R&D who come from a variety of minority groups or those few projects intended primarily for all women, minority or non minority.

EQUITY INFORMATION PROJECT

Population: Higher education, administrators, and students

Award Period; 10/1/78-9/30/79

Award: $141,000

This project will examine many needs and priorities of institutions of higher education for information on equity issues.

A framework of equity information useful to college and university administrators will be developed. A large sample of institutions will be surveyed to determine their practices and needs for equity information, and recommendations will be formulated to foster more effective use of such information. An agenda of needed research and development regarding equity information will be compiled. An executive-level project report on the results of the project will be widely disseminated, and several technical reports will be produced for targeted audiences.

Equity populations are those groups for which deliberate, extraordinary efforts are being made to improve their educational and professional opportunity and participation. The initial list of equity populations includes women, minorities, people with low-income backgrounds, and the handicapped.

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NIE Contact:
EPO, Education Organizations, & Local Communities

A WOMEN'S COLLEGE AS AN AGENT OF SOCIALIZATION FOR WOMEN'S ROLES

Population: Fall 1979 freshman in eastern women's colleges

Award Period: 7/79-12/31/81
Amount: 52,661 in FY '80
40,000 " FY '81

Students will be tested and interviewed to identify features of college that are crucial in making them change their self-images, choice of occupations, and sex role perceptions.

The study will examine the influence of college upon the student's self-image as a woman, the relative salience of work, marriage, and motherhood in her preferred adult life style; her choice of occupation, whether traditional for women or innovative; her perception and her ideals of femininity and masculinity; and her ideology as to gender roles in society. Special emphasis will be placed on the indirect learining that occurs as a by-product of contacts with male and female faculty, male and female peers, as well as, with impersonal features of the college such as its curriculum, the degree of homogeneity (or heterogeneity) of its student body, and others. Freshman sex-role orientation tests will be repeated in the sophomore, and junior years in order to chart patterns of conversion, defection, reinforcement, vacillation, or persistence of role orientations. Starting in the sophomore year, contrasting types of students (e.g. careerists who weakened in their commitment, traditionalist who moved toward feminism, and the like) will be interviewed in depth to discern what features in the college experience and what processes were involved in change or persistence.

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NIE Contact:

Teaching & Learning Women's Research Team
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BARRIERS TO EDUCATION OPPORTUNITIES FOR RE-ENTRY GROUP: WOMEN IN PRIVATE UNIVERSITIES

Population: Woman who continue their education in private universities

Award Period: 11/15/78-11/14/79

Amount: $24,356

This small scale research is on structural and personal barriers facing older women who return to Northwestern University.

The Northwestern site offers an example of a private university self-conscious about traditional patterns for maintaining undergraduate excellence, geared to a youthful student body, and requiring high tuition fees. Notions of graduate student excellence involve the selection of highly committed and able full-time students. Northwestern is competitive with those in the top ten or twenty programs around the country. In this study, thirty undergraduate and thirty graduate older women will be interviewed, to learn of their experience (including strategies and resources available for overcoming obstacles) in fitting their educational plans into the Northwestern context. Perceptions of the students needs will also be examined through interviews with Faculty members and counseling personnel who work with these students.

The research is designed as a pilot project for a larger, comparative study of women's experiences as returning students in a variety of campus settings: residential and commuter colleges, private and public universities, large and small campuses. The overall aim is to begin a systematic overview of the cumulative effects of institutionalized sexism on the re-entry woman's progress through educational programs in the university.

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NIE Contact:
Teaching & Learning, Women's Research Team

The EFFECT OF SEGREGATION AND DESEGREGATION OF SECONDARY EDUCATION ON HIGHER EDUCATION

Population: Students in institutions of higher education

Award Period: 1978-9

Amount: Part of the larger center award.

This is a study of full-time higher education student distribution, attainment, and attrition by type of institution, race and sex, degree of segregation of higher education institutions and prior education.

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NIE Contact:
Education Policy and Organization

WOMEN'S STUDIES MONOGRAPH SERIES

Population: Women's studies students and programs in higher education

Award Period: 12/1/78-11/30/79

Amount: $80,000

Literature reviews will be conducted and research recommendations will be made on various aspects of women's studies.

Eight planning studies were commissioned of researchers in the field of women's studies. These researchers reviewed the literature in those target areas identified by Florence Howe's "Seven Years Later" as needing further study. Although the reviews look at literature since 1969, they focus on that since 1976, when the Howe report was published. In addition, they make specific recommendations for research in each of the target areas. The researchers met with NIE staff in May 1979 to discuss their findings and recommendations. The eight reports will be published as a monograph series in the Spring of 1980.

The researchers and their topics are as follows:

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"Women's Studies in Community Colleges"

Blanche Glassman Hersh
9439 No. Kildare Ave.
Skokies, IL 60076
(312-673-1083)

"Re-entry Women Involved in Women's Studies

Mareyjoyce Green
University Women's Comprehensive Program
University Center Room 363
Cleveland State University
Cleveland, Ohio 44515
(216-687-4674)

"Involvement of Minority Women in Women's Studies

Christine Bose/Janet Priest-Jones
Women's Studies
SUNY at Albany
P.O. Box 9
Albany, NY 12201
(518-457-3907)

"Relationship Between Women's Studies and Vocational Choices and Career Development

Nancy Porter and
Meg Eileenchild
Women's Studies
Portland State University
Portland, OR 97207
(503-229-3521)

"Effectiveness of Women's Studies Teaching

CONTINUATION OF WOMEN'S MONOGRAPH SERIES

Florence Howe/Paul Lauter
Box AV
Amagansett, NY 11930
(516-267-8050)

"Women's Studies, Evaluation, Impact and Institutions"

Elaine Reuben/Mary Jo Strauss
National Women's Studies Association
College Park, Maryland 20742
(301-454-3757)

"Women's Studies Graduates"

Elizabeth Ness Nelson/Kathryn Brooks
Department of Sociology
California State University, Fresno
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(209-487-2891)

"Women's Studies as a School Catalyst for Faculty Development"

NIE Contact:
Teaching & Learning, Women's Research Team

WOMEN'S STUDIES: EVALUATION HANDBOOK

Population: Women's Studies Programs

Award Period: NA
Amount: $3,230 for typesetting, printing

The Handbook acquaints women's studies directors and directors of other interdisciplinary or innovative postsecondary programs with the various types of evaluation and describes how evaluations can be conducted and used.

Based upon the response to a workshop on evaluation given at the annual meeting of the National Women's Studies Association, this evaluation handbook has been prepared to acquaint women's studies directors with various types of evaluation and to show how evaluations can be used in program improvement. The Handbook is written as an evaluation primer, so may be useful to other programs in addition to women's studies. The 70 page handbook is in press and will be available in spring 1980.

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Naida Tushnet Bagenstos
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Margaret Talburtt
Formative Evaluation
Research Associates
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Ann Arbor, Michigan 48104

NIE Contact: Teaching and Learning, Program on Testing, Assessment and Evaluation

THE LETTER OF RECOMMENDATION: A KEY TO WOMEN'S CAREER EQUITY IN ACADEMIA

Population: Male and female applicants for academic postions in higher ed.

Award Period: 10/1/78-9/30/78

Amount: $33,311

Develop a coding system to analyse the content of letters of recommendation to identify possible patterns of sex bias.

A critical piece of information in the selection process for academic positions is the letter of recommendation. While recommenders may be aware of obvious forms of sex-biasing of letters, more subtle differences may still be found which bias the letter in a sex-specific direction. The intent of the proposed study is to determine if differences exist in the letters written for male versus female candidates for academic positions using letters which have been retyped to delete personal and sex-specific identification from the content. Coders will code the letters on a number of coding categories including length of letter, reference to personal versus professional attributes, stereotyped use of descriptive adjectives implying distinctions in "Instrumental" versus Expressive" qualities, and strength of recommendation. Control variables which might account for differences in letters of recommendation such as number of publications, grade point average, quality of graduate institution, and teaching experience will be assessed to determine the relationship of letter characteristics to objective qualifications. The final report will provide recommendations on writing bias free letters of recommendation.

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NIE Contact:
Teaching & Learning, Women's Research Team

SEX-TYPED TEACHING STYLES AMONG UNIVERSITY PROFESSORS AND STUDENT REACTIONS: BARRIERS TO WOMEN'S SUCCESS

Population: Male and female university professors.

Award Period: 10/1/78-9/30/79

Amount: $25,692

This small scale research is on teaching styles of male and female professors at Ohio State University to identify sex differences which may contribute to the success of women professors.

This study examines sex-typed teaching styles among university professors. Adverse student reactions to the styles adopted by women would considerably lower their success chances in the university, since adequate teaching is one criterion for job retention. Two possible adverse reactions are considered: women who use feminine-typed styles may be judged incompetent by students, while women who use masculine-typed styles may be resented by the students. The professors teaching styles will be directly observed with Boughs method, and a select subset of professors will be interviewed. Student reactions will be obtained from a questionnaire. Both quantitative and qualitative analysis techniques will be used to derive a full picture of classroom dynamics: the inter-relationships between professors' behaviors, student reactions, and strategies professors use to cope with any ensuing conflict.

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NIE Contact: Teaching & Learning, Women's Research Team

SUPERWOMAN, MS. OR MYTH: A STUDY OF ROLE OVERLOAD

Population: Female administrators in higher education

Award Period: 10/1/78-9/30/79

Amount: $27,000

This pilot study will involve interviews with college educated women to define the "superwomen syndrome"

College educated women have moved into professional careers in increasing numbers in the 1970's making a marked change in the American society. Although the popular literature increasingly explores the problems of these women, the research literature fails to define the "superwoman syndrome" though obliquely using it in discussions of the problems of professional women.

The definitional study attempts to locate the source of expectations imposed on women professionals which may be barriers to their advancement. The project focuses on women administrators in higher education as a group not only representative of career women but responsible for the education and socialization of women preparing for careers. A third of the participants are Black. Little research has been done about Black women professionals, so the findings will provide comparative insights to their work lives.

Focused groups and individual interviews were conducted with women administrators to examine roles, conflicts between work and personal lives, influential persons in their career development, and expectations creating stress. The study will define the "superwoman syndrome," placing it in the context of professional women's lives and thoughts. In the addition, there will be an analysis of the educational policy implications affecting professional women.

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NIE Contact:
Teaching & Learning, Women's Research Team

LIFE CYCLES AND CAREER STAGES OF WOMEN IN HIGHER EDUCATION

Population: National population of women serving as presidents, vice presidents provosts or chancellors in four year state supported coed institutions of higher education.

Award Period: 9/1/79-8/31/80

Amount: $14,910

Interviews will be conducted to determine if life cycles for these women are similar to Levinson's life cycle theory for adult men.

An intensive 4 hour interview of the approximately forty women who serve in high level administrative positions in higher education will be conducted and the results analyzed. It is hoped that the results will:

1) determine who has served as role models and/or mentors for women who have accessed to upper administrative positions in higher education; 2) identify the determinants of options and incentives perceived by women in upper administrative positions in higher education at varying stages of experience in the life cycle and the work cycle; 3) provide specific occupational directions for women now employed in higher education; 4) determine how, when, and under what conditions women in upper administrative positions in higher education perceive the work environment as producing positive motivational consequences; 5) determine if Levinson's theory of adult development for men at age forty is applicable for women in upper administrative positions in higher edcuation; and 6) provide guidance for prospective women students who desire an administrative position in higher education.

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NIE Contact:
Teaching & Learning, Home Community & Work

WOMEN ON LAW FACULTIES

Population: Women law school faculty, senior women law students, and recent women law school graduates

Award Period: 6/1/79-7/1/80

Amount: $69,780

The selection, status and representation of women on law school faculties will be examined to determine the extent to which equal representation has been reached and to identify special barriers or problems.

The one-year project will develop its data by means of: (I) A national questionnaire survey to all 163 approved law schools, possibly as a special component or supplement to an intensive ABA law school questionnaire directed annually to all Deans which enjoys unusually high response rates, and possibly requiring special sub-surveys of law school appointment and promotion committees: Of law school records units (to ascertain numbers of female graduates meeting such requirements); and of women law teachers, senior law students and recent graduates themselves (concerning perceptions, priorities and attitudes toward law teaching careers); and (II) intensive interviews at a sample of ten to fifteen law schools with deans, administrators, faculty members, appointment and promotion committees, and law students. The National All-School questionnaire cluster will seek to elicit comparative information on number, rank, salary and tenure status, years of experience, and minority distribution (e.g. racial, ethnic) of women faculty as well as gross articulation and rankings on faculty selection criteria and judgments on difficulties in attracting women applicants. The on-site interviews will probe more deeply on issues such as criteria, screening and evaluation practices. Hiring and promotion decisionmaking, attitudes toward women and their performance, recruitment problems and dilemmas and, additionally, will seek to further refine and explain questionnaire data and identify recruitment techniques that may have shown promise.
The procedures used in this project should also provide a model for similar inquiries in other professional fields where women occupy distinct "minority positions" in relation to male counterparts.

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Educational Policy and Organization,
Educational Organizations and Local Communities

SUMMER INSTITUTE ON ADVANCED STUDY ON EDUCATIONAL RESEARCH FOR ASIAN-AMERICANS

Population: Asian American research practitioners and post doctoral fellows

Award Period: 11/1/78-10/31/79

Award: $45,000

This project will establish a Summer Institute designed to: 1) strengthen continuing educational R&D efforts by Asian-American practitioners and recent Ph.D. graduates; and 2) encourage the participation of other professionals and doctoral students in the field.

Project participants -- 30 fellows who are recent Ph.D/Ed.D. graduates, advanced Ph.D/Ed.D. students involved in educational R&D, and professionals not currently engaged in educational R&D -- will attend a series of lectures and seminars focused on educational R&D from the perspectives of different academic disciplines. The seminars will be conducted by ten lecturers who are educational R&D practitioners from different institutions. In addition, persons involved with national educational policy-making will serve as guest speakers. Following the lectures and seminars, four fellows will participate in a six-week internship program designed to provide on-the-job experience in educational R&D.

As a result of the Summer Institute, the Asian-American R&D practitioners and students will have an opportunity to exchange ideas on research topics and special problems and to establish communication modes and provide mutual support to each other.

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NIE Contact:

Dissemination & Improvement of Practice
Minorities & Women's Program

JOINT HAMPTON INSTITUTE AND UNIVERSITY OF MICHIGAN PROGRAM FOR TRAINING MINORITY AND WOMEN RESEARCHERS

Population: Minority and women educational researchers from black colleges

Award Period: 9/15/78-9/14/79

Award: $140,728

This program is designed to provide research training and collaborative support for nine members of the Hampton Institute faculty, and three Michigan graduate students. Each participant will be member of a research team that will also include a University of Michigan faculty member.

Although faculty members at black colleges receive doctoral training for research, they often are not as productive in this area as they might be owing to the lack of opportunties to develop the new skills needed in rapidly changing areas of research. Three kinds of research teams will be compared: 1) A triad including a Hampton faculty member and a Michigan junior faculty member working with a Michigan senior researcher. 2) A triad with a Hampton faculty member, a Michigan graduate student, and a Michigan senior researcher. 3) A dyad made up of a Hampton faculty member and a Michigan senior researcher.

There will be three instances of each team--nine teams in all. These teams are designed to provide support in development of methodological and theoretical skills, and to give the interpersonal support needed to maintain research efforts given the inevitable problems arising in the course of a research project. Participants will be chosen on the basis of likely value of the program in contributing to his/her research effectiveness as judged from the applicant's description of previous training, current needs for training, and plans for continuing research.

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NIE Contact:

Dissemination & Improvement of Practice, Minorities & Women's Program

RESEARCH DEVELOPMENT WORKSHOPS FOR FACULTY MEMBERS FROM PREDOMINATELY BLACK COLLEGES

Population: Women and minority faculty from black colleges

Award Period: 10/1/78-9/30/79

This project will establish a series of research and evaluation workshops dealing with the needs of faculty members from predominately black colleges and universities.

The project will: 1) recruit and select five faculty members to participate in the program; 2) expose the participants to leading scholars and researchers in the social and behavioral sciences: 3) improve the research and evaluate skills of the participants; 4) develop more favorable attitudes toward and knowledge of careers in research; 5) provide the participants with the opportunity to work ongoing research projects; 6) assist the participants in developing innovative materials for teaching research courses; 7) introduce and expose participants to funding sources for their research interests; 8) provide technical assistance to participants; and 9) continue the tradition of the university in linking its resources to current needs of the black community.

The program will consist of three courses: 1) Models and Methods of Social Behavioral Science Research (four weeks); 2) Computer Utilization in Social and Behavioral Science Research (two weeks); 3) and Grantsmanship (two weeks). There will be a practicum that will involve working on active research projects in the Institute; visiting and consulting with Federal agencies, research institutes, and data sources in the Washington area; and developing curriculum materials for research courses. Finally, technical assistance will be provided to participants after they completed the program.

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NIE Contact:

Dissemination
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Minorities &
Women's Program

CAPACITY BUILDING PROGRAM THROUGH ADVANCED RESEARCH SEMINARS FOR MINORITIES AND WOMEN

Population: Primarily Hispanic men and women in educational research

Award Period: 9/1/78-8/31/79

Award: $100,000

This project is focussed on the development of three separate yet interrelated intervention models geared toward the provision of opportunities for increased participation of women and minorities in advanced study and research in education.

The first year of the project (that currently funded) will be devoted to a series of three-day Advanced Research Seminars focused on: 1) quantitative skills development; 2) proposal development and funding and; (3) networking and capacity building, including dissemination and evaluation. Participants will also be exposed to current substantive problems in the field of educational research. Other first-year activities include the establishment of an Advisory Council comprised of four professionals (including at least two women) with a background in educational research and the Chairperson of the Education Committee of the NCLR Board of Directors. The Advisory Council members will act as mentors and role models for second-year project participants.

Mike Cortes
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Research and Legislative Analysis
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(202-659-1251)

NIE Contact:

Dissemination & Improvement of Practice Minorities & Women's Program

ETHNOPERSPECTIVES IN BILINGUAL EDUCATION RESEARCH

Population: Primarly Hispanic educational researchers

Award Period: 11/1/78-9/30/79

Award: $54,790

This project is designed to increase the participation of minorities (especially Latinos) and women in advanced education research.

Mentor and target researchers will participate in two three-day learning forums on bilingual education and public policy in the United States. The first forum, an interactive forum, will involve communicating state-of-knowledge information to the participants by experts in specific areas of bilingual education research. The second forum, an ethnoperspectives forum, will be devoted to the development, articulation, and analysis of enthnoperspectives within the specific areas of bilingual education research covered during the interactive forum.

The special project is expected to have an impact on three distinct groups: 1) a focal group of participants (12 mentor researchers and 12 minority researchers) funded under the project; (2 a second group of forum participants who will cover their own expenses; and 3) a third group who will not participate directly in the forum but who will have access to materials produced through the project.

Raymond V. Padilla
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106 Ford Hall
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(313-487-1035)

NIE Contact:

Dissemination & Improvement Practice, Minorities & Women's Program

PROJECT FOR MINORITIES AND WOMEN IN RESEARCH

Population: Primarly Hispanic women in educational research

Award Period: 10/1/78-9/30/79

Award: $99,015

This experimental project is designed to bring together predoctoral and postdoctoral minority persons and women in educational research to work on research questions in a cooperative effort.

The project is intended to be a replicable model that includes methods and practices to allow participants to improve needed skills, engage in research and publications, and interact with potential mentors and role models from relevant scholarly fields, thereby developing informal communications that will give them access to information related to opportunities and developments in the area of educational research. Specifically, the project will provide: 1) stipends for four postdoctoral participants and eight predoctoral participants, 2) special activities such as monthly seminars conducted by the postdoctoral participants and established scholars in relevant fields, 3) special learning sessions (five per year) conducted by nationally recognized researchers, 4) opportunities to engage in team and individual research projects, and 5) access to support services such as statistical consultant services, computer time, library resources, etc.

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NIE Contract:

Dissemination & Improvement of Practice, Minorities & Women's Program

PROJECT GROWTH: AN EXPERIMENTAL PROJECT FOR INCREASING PARTICIPATION OF WOMEN AND MINORITIES IN EDUCATION R&D

Population: Primarily Chicano in educational research

Award Period: 9/1/78-8/31/79

Award: $48,488

This project will address the problem of underrepresentation and underutilization of Chicanos in higher education and educational R&D organizations.

Through the alternative educational program of Colegio Cesar Chavez, a series of workshops and seminars will be developed focused on research methodologies and Chicano community issues, thus joining two often disparate areas. Project participants -- Colegio staff, consultants, alumni, community persons, and intern role models -- will establish a network for developing and disseminating research methodologies and increasing participants skills. Attainment of these skills will, in turn, enhance the chances of success at the graduate program level and begin to address the fundamental issue of the underrepresentation of Chicano in educational research and development.

Specific activities in which participants will be involved include: 1) work on program development and planning (R&D capacity building curriculum for the college), 2) development of a network schema to encourage post-doctoral activity through external adjunct faculty participation, and 3) a series of workshops and seminars focusing on research methodology and Chicano community issues. Data derived from the presentations and discussions of materials at the workshops will provide the basis for a data bank of highly skilled individuals and a data base for the planning and development of a comprehensive program for increasing Chicano participation in educational research.

Salvador Ramirez
Peter de Carmo
Colegio Cesar Chavez
1000 Main Street
Mount Angel, Oregon 97362
(503-845-2234)

NIE Contact:

Dissemination & Improvement of Practice
Minorities & Women's Program

PUERTO RICAN RESEARCH AND TRAINING PROJECT

Population: Primarily Puerto Rican educational researchers

Award Period: 9/1/78-8/31/79

Award: $45,000

In this project, a series of tutorials, workshops, and research methodology courses will be developed to involve Hispanic professionals in educational research affecting the Hispanic community.

Given the limited number of Hispanic professionals involved in educational research in the area's universities and colleges, the program seeks to create a base for Hispanic-oriented educational research in the community. La Casa de Puerto Rico, a Hispanic research, training, and advocacy organization in Hartford with six years of experience in research in education, housing, health and mental health, offers such a base for coursework, research, and utilization of research results.

The project will offer a range of research opportunities, workshops and a core methodology course to teachers, students, educational agency personnel, and experienced community education professionals. Practicipants will be expected to carry out research in their own work contexts relating to informational needs that will improve their service delivery and contribute to community program and research priorities in bilingual education, parent involvement in schools, career and early childhood education.

The project director will draw on the expertise on the La Casa Education Task Force and a technical advisory committee made up of community Education Task Force and a technical advisory committee made up of community representatives and researchers from area institutions of higher learning. Project participants will carry out research under an assigned mentor who will introduce the participant to his/her personal network and advocate for Hispanic student involvement at his/her university or college. Accreditation for tutorials and core methodology sequence will be arranged for participants with the University of Connecticut - School of Education. Mentors will be identified from this university and from Trinity College, St. Joseph's College and the University of Hartford.

Dilila Soto
La Casa de Puerto Rico, Inc.
96 Wadsworth Street
Hartford, Connecticut 06100
(203-522-7296)

NIE Contact:

Dissemination Improvement of Minorities & Women's Program

ALTERNATIVES IN INDIAN EDUCATION: PROBLEM-SOLVING SKILLS AND POLICY-MAKING STRATEGIES

Population: Native American and women researchers

Award Period: 10/1/78-9/30/79

Award: $99,559

Seven researchers, Four of whom are Native Americans will study the Canoncito Navajo Reservation and its mid-and high school students who are bused into Albuquerque, N.M., a round trip of approximately 80 miles.

The research will focus on the following questions: 1) What are the strengths and weaknesses of these students; how are they alike and different from other students in their schools? 2) What outside political events and structures impinge on the quality of their education? 3) How can this information be translated into local education practice?

In spite of the vast amount of energy spent in the 'study' of the Native American, much of the work has served little purpose in the education of Indian students. This is primarily due to the tendency to view all Indians as members of the same group.

Therefore, we have set as our research premises: 1) Indian students are like all other students in some ways. 2) There are differences which affect the learning and education of any particular group of Indian students. 3) Any group of Indian students will differ from other Indian students (even members of the same tribe), and 4) Indian parents have the right to know about research being done with their children.

Myron E. Jones
Indian Education Training, Inc.
1110 Pennsylvania, N.E., Suite C
Albuquerque, N.M. 87110
(505-265-7957)

NIE Contact:

Dissemination and Improvement of Practice Minorities and Women's Program

NAVAJO PHILOSOPHY OF EDUCATION: ITS TRADITIONAL SOURCES AND THE CONTEMPORARY REGIONAL AND NATIONAL CONTEXTS

Population: Navajo educational practitioners

Award Period: 9/1/78-8/31/79

Award: $45,000

This study concerns Navajo educational research and data.

Over many centuries, a uniquely Navajo philosophy of education has been developed. However, this philosophy has never been fully articulated or critically analyzed.

In this project, Dine Biolta Association -- a Navajo educational association -- will prepare a descriptive analysis of Navajo educational philosophy, as well as including data obtained in previous research projects on Navajo education, comparative analysis of the philosophies intrinsic to the educational programs administered on the Navajo Reservation by Federal, state, tribal, mission, and other organizations. Navajo professionals and pre-professionals in education will be given rigorous training by established researchers to assure the conduct of the research at a high level of competence and to develop professional research skills that will remain within the pool of expertise of the Navajo people.

To achieve wide public participation in this effort, as well as public visibility of the research results, a series of seminars will be conducted among the Navajo people. Final results will be written specifically for direct input into the policy deliberations of The Navajo Tribe, the Federal Bureau of Indian Affairs, the Bureaus of Indian Affairs in Arizona, New Mexico, and Utah, and other appropriate agencies.

Dillon Platero
Dine Biolta Association
University of New Mexico
Onate Hall, Room 228
Albuquerque, New Mexico 87131
(505-277-4740)

NIE Contact:

Dissemination & Improvement of Practice, Minorities & Women's Program

INSTITUTE FOR ADVANCED RESEARCH TRAINING: FOCUSED ON WOMEN AND MINORITIES

Population; Minorities and women educational researchers in post-secondary institutions

Award Period: 10/1/78-9/30/79

Award: $100,000

Research training is made available to persons without advanced techniques to enable significant studies to be disseminated properly.

This project is intended to: 1) stimulate increased participation of minorities and women in educational research through short term workshops and seminars; and 2) enable persons with minimal advanced experience in research to design, develop, and disseminate significant research studies unqiue to their home colleges/ universitess.

The training to be provided has three major components: 1) The design and development of procedures for the collection and dissemination of educational research information and findings. 2) An advancing research training component, designed to provide opportunities (resource and facilities) for postdoctoral or experienced professionals to engage in full-time research. 3) An intermediate research training component, designed to assist predoctoral and/or less experienced researchers in the development of research skills.

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NIE Contact:

Dissemination and Improvement of Practice, Minorities and Women's Program

PROJECT GROWTH: PERSONAL AND PROFESSIONAL EXPERIENCES FOR EMERGING LEADERS IN EDUCATIONAL RESEARCH

Population: Women interested in conducting educational research

Award Period: 10/1/78-4/30/79

Amount: $75,000

This project is helping initiate twelve women into educational R&D by providing educational experiences for them.

The project has four objectives: To provide educational activities by which project participants can develop the personal and professional skills required to make meaningful contributions to the field of educational research; to integrate project scholars into effective networking systems by which they can gain exposure and develop resources and personal contacts; to facilitate understanding research that reflects the individual perspectives and interests of participants; and to disseminate widely both the project design and resulting research of one project on women in educational administration.

Thomas Diener
Otis Holloway Owens
University of Alabama
University for Higher Education Services
P.O. Box 6293
University, Alabama 35486
(305-348-7770)

NIE Contact:

Dissemination & Improvement of Practice; Minorities and Women's Program

RESEARCH AND DEMONSTRATION OF NONTRADITIONAL APPROACHES TO THE PREPARATION OF MINORITIES AND WOMEN FOR CAREERS IN EDUCATIONAL R&D

Population: Minorities and women students of educational research

Award Period: 6/1/78-6/30/79

This project, developed in conjunction with the Citizens' Participation in Educational Decisionmaking Study, is designed to provide data on the feasibility of nontraditional training programs for increasing the number of minorities and women in research and development.

The project has two major components: a demonstration component and a program development component.

The demonstration component will support 22 minorities and women who would otherwise not be able to attend universities and colleges in a university community research degree-granting program. A faculty advisor will be assigned to a group of students in each of the three cities engaged in the study. The faculty advisor will assist in developing a program and facilitate the special needs of these students. The program development component, a team of highly specialized consultants with expertise in various areas, will develop a core curriculum in community research oriented toward the social sciences, with emphasis on research methodology that can be offered to community researchers around the country. The overall purpose of the project is to involve community researchers in credentialing university programs and build on their practical research experience.

Marilyn Gittell
C&O Research Foundation
Graduate School of University Center
City University of New York
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New York, New York 10036
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NIE Contract:

Dissemination and Improvement of Practice, Minorities and Women's Program

EXPANDING OPPORTUNITIES FOR MINORITIES AND WOMEN IN EDUCATIONAL RESEARCH AND DEVELOPMENT: THE MENTOR/FELLOW MODEL

Population: Minority women educational researchers

Award Period: 9/1/78-8/31/79

This project will recruit and place four to eight minorities and women with mentors--leading scholars who are actively part of the R&D network--to work together for a two year period.

This match between fellows and mentors is intended to accomplish the following for each fellow: 1) Advance discipline-based knowledge, technical research competence, and network coping skills, 2) introduce career opportunities, 3) increase network contacts, 4) facilitate the development and publication of at least three papers, 5) assist in designing a program of research on a particular problem area, and 6) develop collaborative or complementary investigative relationships with scholars working in related fields. They will be re-established in their prior positions or will be placed in a new one in such a way that will permit them to continue their scholarly work.

Edmund Gordon
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NIE Contact:

Dissemination & Improvement of Practice, Minorities and Women's Program

POST-DOCTORAL TRAINING TO DEVELOP NEW OPPORTUNTIES IN EDUCATIONAL RESEARCH FOR WOMEN AND MINORITIES

Population: Female advanced graduate students

Award Period: 10/1/78-9/30/79

Amount: $93,330

This prototype program is designed to train equal educational opportunity researchers and help them enter the profession.

Nine-month postdoctoral fellowships have been provided to women. Specific training and research projects will consider issues in institutional racism, sexism, and ageism through examination of formal and informal barriers to opportunities in higher education in the Chicago area.

The project will offer special research practicums in qualitative and quantitive research methods and analysis of existing data. Each fellow will then apply these skills in the development and implementation of a research project focusing on education for women and minorities. The directors and staff serve as role models and mentors, as well as instructors. The fellows will also serve as models — for those they study as well as for others who aspire similar careers. As fellows develop research experience in the field, they will also receive instruction on the techniques of writing for publication for various audiences and the techniques of grant proposal writing. Fellows will also be provided with support in presenting their findings at professional meetings, publishing articles, and gaining access to professional networks. Ongoing evaluation of the program will be conducted to assess and develop the program in response to emergent issues.

Arlene Kaplan Daniels
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Program on Women
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(312-492-7360)

NIE Contact:

Dissem. & Improvement of Practice, Minorities & Women's Program

A MULTIPURPOSE MODEL TO INCREASE EQUAL PARTICIPATION IN EDUCATIONAL RESEARCH

Population: Women and minority educators, practitioners, and doctoral candidates

Award Period: 11/1/78-10/30/79

Award: $100,000

This project is focused on implementing the recommendations from a series of reports sponsored by NIE since 1976 to increase the participation of minority persons and women in educational R&D. The program utilizes a multipurpose and multilevel model that has three interrelated components.

The core component involves a research sequence of five courses, with emphasis on nontraditional, action-oriented research methods to close the gap between basic research and educational practitioners and to facilitate the development of cultural sensitivity in research.

The second component involves a post-doctoral fellowship program that will provide an opportunity for five qualified doctoral students from diversified academic fields to carry out advanced basic and action research on educational equity. Faculty supervision of the fellows' research studies will build the needed mentor sponsorships to facilitate fellows' national conference exposure and obtain positions of responsibility in R&D after the training. The fellows, in turn, will provide lab assistance for the proposed research sequence and role models for other educational students.

The third component is a one-year research internship training program for four minority and woman educators nominated from local school systems. The trainees will retain their jobs with pay for the year of training; most will also pursue an additional year of study to complete their doctorates under another proposal that is currently being formulated. The college of education will nominate five graduate students to become teaching interns in the public school systems, and they will receive graduate credits for their internships.

Lily Bergess
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NIE Contact:

Dissemination Improvement & Practice, Minorities & Women's Program

A TRAINING PROGRAM FOR MINORITIES AND WOMEN IN RESEARCH AND DEVELOPMENT OF NATIONAL EDUCATION POLICY AND LEGISLATION

Population: Educational policy interns

Award Period: 9/1/78-9/11/79

Amount: $100,000

The majority of the interns in this policy internship program are women.

The USC Doctoral Fellowship Project is intended to produce highly skilled minorities and women in educational research and development related to national education policy and legislation. This interest is specifically related to the problem of inadequate representation of minorities and women, particularly Hispanics, in the field of education policy research and their proportionate underutilization at top levels of decision-making authority.

The project be will carried out through an internship placement of 6 to 12 months in macro-educational settings at the policy-making level and intensive theoretical training leading to a terminal degree in education.

Silas H. Abrego
John A. Carpenter
USC Doctoral Fellowship Project
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University of Southern California
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Los Angeles, California 90007
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NIE Contact:

Dissemination & Improvement of Practice, Minorities and Women's Program

NAED EDUCATIONAL RESEARCH MANAGEMENT WORKSHOPS

Population: Minority and women educational researchers.

Award Period: 10/1/78-8/31/79

Award: $45,000

In this project, the National Academy of Education will conduct two Washington-based, two-week workshops to train educational researchers in colleges, universities, and not-for-profit institutions in the effective management of research grants and programs.

Twenty participants, a majority of whom will be women and minority group members, will be selected for each workshop from nationwide applications.

The workshops will include intensive seminars -- containing lectures, discussions, and simulation exercises regarding: 1) Research conceptualization and design, 2) research methodology, 3) proposal preparation, 4) budget creation and presentation, 5) contract negotiation, 6) project management, 7) job costs and job process, 8) special areas, such as human relations problems and computer technology, 9) report writing, editing, printing, and dissemination, and 10) project closing.

Instruction will be provided by experts in research and research management. An integral part of each workshop will be presentations by and participation of prominent National Academy of Education members who will serve as mentor-models.

John May
National Academy of Education
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NIE Contract:

Dissemination & Improvement of Practice Minorities and Women's Program

TRAINING URBAN EDUCATORS FOR LINKING AGENT ROLES

Population: Women and minority educational practitioners in five urban school districts.

Award Period: 10/1/78-9/30/79

Amount: $45,000

This project will train women and minorities from middle management levels in five urban school districts to function as Linking Agents.

This training will help prepare them to assist their districts as they identify and select educational research and development outcomes to meet local needs and resources. Through the utilization of tested R&D outcomes the districts will be able to provide a better and more cost-effective education for children. The project will also provide needed research on effective methods of training urban school personnel to help school districts identify and select educational research and development outcomes which match their needs and resources. The majority of the 11 participants who are receiving this training are women who have extensive classroom teaching experience and are presently serving as curriculum support staff in their districts.

Carol Johnson
Thel Kocher
The EXCHANGE
Minneapolis Public Schools/University Minnesota
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NIE Contact:

Dissem. & Improvement of Practice, Minorities and Women's Program

ADVANCED AND SPECIALIZED STUDY IN EDUCATIONAL RESEARCH TECHNIQUES

Population: Faculty researchers in education and school district staff

Award Period: 10/ /78-
10/ /79

Amount: $100,000

This project trains six faculty researchers in advanced educational research methodologies and helps local school district staff conduct research.

The trainig program for 3 male and 3 female faculty researchers will involve a series of special projects symposiums led by well-known researchers in education and other disciplines. Training for partitioner participants will consist of intensive study and instruction from faculty mentors.

Research topics that have already been selected include "Sex Roles in Educational Functioning of Mexican-American Women and "Training of Minority and Women School Administrators."

Since this effort is an experimental and demonstration program, its findings will be widely disseminated to the research and education communities at large, through faculty and intern research reports, articles, position papers, occasional papers, and conference presentations, as well as project reports. Both external and internal evaluations of the project, to permit input and modification of the program as needed, will be made.

Ricardo Cornejo
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NIE Contact:

Dissemination & Improvement of Practice, Minorities & Women's Program

RESEARCH SKILLS DEVELOPMENT INSTITUTE: A SPECIAL PROJECT

Population: Teachers and Administrators in the social and behavioral sciences and in education who want to improve their research

Award Period: 10/1/78-9/30/79

Amount: $45,000

Twenty five to thirty participants, the majority of whom are women will receive research training during the summer of 1979 at Morgan State University.

This Research Skills Development Institute, under the auspices of the American Sociological Association, is an experimental program focused on enchancing the participation of women and racial/ethnic minority scholars in education and social and behavioral science research. Emphasis on providing professional opportunties for those whose talents have been underutilized. General objectives of the Institute include providing participants with: basic skills in the understanding and application of research techniques to problems in education and the behavioral sciences; ways to collect, present, and interpret statistical data on educational issues; a knowledge of the various methodological tools available; and the mechanics of research design; table, chart, and graph construction for analysis of educational and behavioral science data.

Specific research training objectives involve: 1) enabling participants to understand how educational, social and behavioral science research are carried out with emphasis on bivariate and multivariate techniques; 2) enabling participants to grasp a close relationship between theory and research; 3) increasing the research literacy of participants in order to enable them to understand educational, social and behavioral science literature: (e.g., to read journal articles and to know more about scaling, correlational analysis and causal inferences, and computer programming languages used in the analysis of data; 4) allowing participants to critically evaluate educational and behavioral and social science literature.

This project, which will be carried out over a four week period at Morgan State University, will consist of workshops, study sessions, informal meetings with visiting scholars, lecture presentations, practicums on basic research, statistical techniques, and computer applications. Several of the applicants have expressed specific interest in conducting research on sex roles and the status of women in the professions.

Doris Wilkinson,
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American Sociological Association
1722 N Street, N.W.
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(202-833-3410)

NIE Contact:

Minorities & Women's Program, Dissemination & Improvement of Practice

INDEPENDENT EDUCATIONAL STUDIES REPORT

Population: Faculty members from small teaching colleges and universities

Award Period: 10/1/78-9/30/80

Amount: $139,306

The majority of faculty members selected for the post-doctoral experiences provided by this project are women.

The Independent Educational Studies Project is designed to assist well-qualified faculty members, particularly minority and majority women, from small teaching colleges and universities to participate in postdoctoral educational research. By enabling these persons to work on important educational research topics under the guidance of recognized educational researchers, the Institute for Independent Study seeks to enrich educational research through the participation of these researchers and to enhance both the scholars' career development and the quality of education at their home institutions.

During full-time appointments at the Bunting Institute, project participants will prepare publishable studies on educational research topics, with priority being given to studies on minorities' and women's issues. These project participants will be selected from a national applicant pool on the basis of: 1) the promise of the proposed study to contribute significantly to educational research; 2) the methodological quality of the research proposal; 3) the probability that a publishable study will be completed by the end of the appointment; and 4) the potential of the applicant to undertake creative and continuing independent research.

Through such mechanism as discussions with study consultants, colloquium, presentations, educational research seminar participation, and working paper and monograph dissemination, Radcliffe will seek to ensure that participants have opportunities to enhance their education research skills, receive professional counsel, and participate in collegial networks.

Marion Kilson
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3 James Street
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NIE Contact:

Dissemination & Improvement of Practice, Minorities and Women's Program

GENERAL PROJECTS ON SEX EQUITY

This category contains abstracts of three projects which disseminate a range of R&D based findings related to sex equity in education. It also contains specialized projects which did not fit well in the other categories.

THE 1978-79 WOMEN'S EDUCATIONAL EQUITY COLLOQUIA SERIES

Population: Attendees are individuals interested in sex equity R&D in education.

Award Period: 9/29/78-12/31/79

Amount: $14,139

Monthly meetings with speakers who have expertise in particular areas of sex equity are held in Washington, D.C.

About 1000 invitations are sent to announce each Washington, D.C. meeting. The following list indicates initial topics. Dr. Ethel Tobach described how hereditarian theories of human behavior are sexist. Dr. Constantina Safilios Rothschild explained her model of sex discrimination in education. Dr. Elizabeth Cohen presented some evidence to suggest that women shouldn't be educated for leadership positions. Dr. Athena Theodore described what is happening to women who protest sex discrimination in higher education, Drs. Myra and David Sadker reviewed the literature on male role stereotypes and Dr. Betty Morrison discussed research on sex and race inequities in classrooms. A report summarizing all sessions will be prepared. In addition to sharing information on women's educational equity, the series facilitates networking among individuals interested in sex equity in the area.

Phyllis Sureff
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NIE Contact:
Teaching and Learning, Women's Research Team

WOMEN'S RESEARCH PUBLICATIONS SERIES

Population: Primarily elementary and secondary school students, secondarily, adult women.

Award Period: 4/1/79-3/31/80

Amount: $19,039

This publication concerns selective NIE-sponsored research on women for researchers in the area.

These publications will contain three to four volumes of reports on research sponsored by the Women's Research Program since 1973. Only those reports not available in print elsewhere will be in included in this series. This research is on a variety of topics in the area of sex role development and socialization.

Bonnie Ashbaugh,
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NIE Contact:
Teaching & Learning Women's Research Team

DISSEMINATION OF RESEARCH FINDINGS ON SEGREGATION BY SEX AND THE FEMALE EXPERIENCE

Population: General

Award Period: 3/1/79-2/28/80

Amount: $18,519

This project will prepare and disseminate a conference and other reports on women.

The Stanford Center for Research on Women (CROW) will disseminate, through Comment magazine, 10-15,000 copies of a report on CROW's research conference "Segregation by Sex: The Variable of Gender in Social Science Research." Copies will also be available from the Center. Also to be disseminated by CROW are a report on the integration of women's studies into the mainstream of academic life and a documents package on "The Female Experience."

Diane Middlebrook & Marilyn Yalom
Center for Research on Women
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NIE Contact:
Teaching & Learning, Women's Research Team

AVOIDING SEX AND RACE BIAS IN EDUCATIONAL RESEARCH AND EVALUATION

Population: All individuals involved in educational R&D

Award Period: 8/20/79 - 7/31/80

Amount: $2,500

Prepare a publication which will synthesize information on issues of sex and race bias which invalidate research.

Because of uncontrolled sex and race bias, many research studies are invalid and potentially harmful, yet very little on these issues has been mentioned in social science research methodology text books. These biases have a great impact on all stages of the research process from problem selection through the generation of conclusions. The small amount of thinking and work that has been done in this area will be synthesized into a comprehensive, provocative and useful publication which is augmented by new thinking of the principal investigator and reactors. A summary report which contains guidelines on avoiding sex and race bias in research will also be prepared.

Patricia Campbell
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NIE Contact: Teaching and Learning, Women's Research Team

ANALYSIS BY RACE AND SEX OF FEDERAL EVALUATIONS OF ELEMENTARY AND SECONDARY EDUCATION PROGRAMS

Population: Grades K-12

Award Period: 8/24/79-9/30/80

Amount: FY 79: $9,160
FY 80: $10,000

The study examines the extent to which data by race and sex were collected, analyzed and reported in federal evaluations of elementary and secondary education programs.

This study examines evaluations of federal elementary and secondary education programs to ascertain (1) whether data by race and sex were collected, analyzed and reported, and (2) whether policy implications about differential effects, if any, were made. The study will produce policy recommendations based on these analyses relating to future procurements and suggested program regulation changes.

Meredith Larson
1185 Woodland Avenue
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NIE Contact: Teaching and Learning, Program on Testing, Assessment and Evaluation

ASSISTANCE IN ADMINISTERING 1979 WOMEN'S EDUCATIONAL EQUITY RESEARCH GRANTS PROGRAM

Population:

Award Period: 1/ /79-
1/ /80

Amount: $27,463

Administrative services to conduct the Women's Educational Equity Research Grants Program, including typing, mailing and arrangement for review.

NIE Contact:

National Institute for
Community Development,
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Teaching and
Learning,
Women's
Research Team

III NIE SPONSORED

PUBLICATIONS

ON SEX EQUITY

Abstracts of recent publications are described in the first five pages. ERIC abstracts are then provided for the following categories:

Women and Mathematics, Sex Equity in Careers and Employment, Sex Roles in Early Childhood Socialization, Sex Differences in Achievement and Motivation, Sex Equity in Elementary and Secondary school Practices, Sex Equity for Groups with Special Needs, Women Educations, Women in Higher and Continuing Education, and General Publications on Sex Equity. The abstracts are arranged in alphabetical order by initial author within each of these categories.

RECENT NIE SPONSORED SEX EQUITY PUBLICATIONS WHICH ARE NOT LISTED IN ERIC

Annual Report, A National Assessment of Performance and Participation of Women in Mathematics

Jane Armstrong and Stuart R. Kahl

Women in Mathematics Project
NAEP, Suite 700
1860 Lincoln Street
Denver, Colorado 80295 Free of Charge

September 1978

This publication is the first year report to NIE on the Women in Mathematics Project conducted by the Education Commission of the States. The report includes a brief literature review, a description of the development process, definition of the variables included in the study, and the actual survey instruments.

Women in Academe: Steps to Greater Equality. Research Report No. 1, 1979.

Gappa, Judith M.; Uehling, Barbara S.

ERIC Clearinghouse on Higher Education, George Washington Univ., Washington, DC; American Association for Higher Education, Washington, DC.
AVAIL: Publications Dept., American Association for Higher Education, One Dupont Circle, Suite 780, Washington, DC 20036 ($4.00)

A review of current research and literature about women in higher education is presented in this monograph in the context of equality of opportunity. The following areas are addressed: The status of women students, institutional practices that affect the participation of women students, the socialization process, women's studies and women's colleges, women faculty and administrators, academic careers, legislation pertaining to the rights of women in higher education and current enforcement efforts, and recommendations for the future to achieve greater equality. The research indicates that there have been and continue to be powerful constraints affecting the participation of women; the status of women as students and employees is still not equal to that of men. Reasons for the discriminatory situation are documented and examined, although there are limitations in the information provided by available research. Recommendations consist of five steps that institutions, agencies, and organizations can take to increase the participation of women in higher education. A bibliography is included.

Learning What's Taught: Sex Differences in Instruction

Leinhardt, Gaea; Seewald, Andrea and Engel, Mary (1978)

Learning Research and Development Center
3939 O'Hara St.
Pittsburgh, PA 15260

Currently available from author. Will be published in Journal of Educational Psyc.

Research indicates that boys perform better on mathematics tests while girls perform better on reading tests. An investigation of why boys' and girls' performance differs was made by coding teacher interactions with second grade students during reading and mathematics instruction. Results reveal the following: teachers made more academic contacts to girls in reading and to boys in math; teachers spent relatively more cognitive time with girls in reading and boys in math; teachers made consistently more managerial contacts to boys than girls; and, while there were no differences in initial abilities, sex differences were found in end-of-year achievement in reading.

A Step Toward Equality: A Progress Report

National Commission on Working Women
Center for Women and Work
1211 Connecticut Ave, NW, Suite 400
Washington, DC 20036

September 1978

This report describes the National Commission on Working Women and its activities from Sept. 1977 - Sept. 1978.

Women at Work: Research Roundtable on Working Women

National Commission on Working Women
Center for Women and Work
1211 Connecticut Ave, NW, Suite 400
Washington, DC 20036 and

The Women's Studies Program
George Washington Univ.

December 1978

This report describes a meeting of nearly 100 men and women from government agencies, universities, organized labor and community action groups who met to share their expertise in five issues of concern to working women. These issues were: wages and job evaluation systems, training, organizing, child care, and technological innovation.

National Survey on Working Women: Perceptions, Problems and Prospects

National Commission on Working Women
Center for Women and Work
1211 Connecticut Ave, NW, Suite 400
Washington, DC 20036

June 1979

This report summarizes the results of 110,000 responses from a Sept. 1978 survey of working women which was published in eight national women's magazines and numerous labor publications. Both currently employed and unemployed women described their job and life satisfactions and concerns about the work force.

The Planning Papers for the Vocational Education Study: Vocational Education Study, Publication No. 1

The Vocational Education Study
National Institute of Education
1200 19th Street N.W.
Washington, D.C. 20208

Free of charge from NIE while supply lasts. Otherwise purchase from Government Printing Office

April 1979

This volume contains 14 papers commissioned to assist in planning for the conduct of the vocational education study which is being carried out by the National Institute of Education in accordance with the mandate of the Education Admendments of 1976. Of particular relevance as regards the matter of sex equity in vocational education are the papers on "Effects of Vocational Education Programs: Research Findings and Issues"; "Race and Sex Compliance Issues in Vocational Education" and "Vocational Education for Special-Need Students".

The Planning Papers on Consumer and Homemaking Education Programs: Vocational Education Study, Publication No. 2

The Vocational Education Study
National Institute of Education
1200 19th Street N.W.
Washington, D.C. 20208

Free of charge from NIE while the supply lasts. Otherwise purchase from the Government Printing Office

This volume contains 3 monographs commissioned to assist in planning for the conduct of the vocational education study which is being carried out by the National Institute of Education in accordance with the mandate of the Educational Admendments of 1976.

The three monographs summarize the status and characteristics of consumer and homemaking education and offer advice on issues the NIE study project should take into consideration as it carries out its charge to examine programs in this field.

Ruth Hughes of Iowa State University, Aleene Cross of the University of Georgia, and Elizabeth Simpson of the University of Wisconsin, respectively, examine content and audience from the viewpoint of curriculum developers; discuss ways to gauge the effectiveness of various curricula; and probe the social implications of consumer and homemaking education.

Sex Role Socialization and Sex Discrimination: A Synthesis and Critique of the Literature

Constantina Safilios-Rothschild
S-113 Henderson Human Development Building
Pennsylvania State University
University Park, PA 16802

Free of charge from NIE while the supply lasts. Otherwise it will be available in ERIC.

October 1979

This volume contains an extensive review and synthesis of the literature on sex role socialization and sex discrimination in education. This work was conducted in 1974-5 and selectively updated in 1978. Selected topics include women's achievement and achievement motivation; sex discrimination in primary, secondary and higher education; sex discrimination: theory and research; and sex role stereotypes: Are they changing and how much?

Recent NIE Sponsored Publications in ERIC

Adult Women in the Skilled Trades

Norma L. Briggs

The National Center for Research in Vocational Education
Ohio State Univ.
1960 Kenny Rd.
Columbus, OH 43210

1978

Available from ERIC, ED 164975 or the Center IN 132 $2.80

The participation of women in the skilled trades increased appreciably between 1960 and 1970; however, the rate of increase was not as large as could have been expected if women had entered the skilled trades at the same rate they entered the total civilian labor market. The gap between men's and women's median earnings was greater in 1970 than in 1960, but in the skilled trades the decrease in women's earnings in proportion to men's was smaller. The participation of women in the skilled trades appears to be higher in larger companies in large metropolitan areas than it is on the average nationwide. Also, proportionately more minority women are employed in the skilled trades by such companies. Women continue to be underrepresented in both apprenticeship training programs and vocational/technical education programs for the skilled trades even though affirmative action regulations and special stimulus programs have made some gains. Women have been well represented as participants in federal government training programs; however, they have been disproportionately concentrated in programs which lead to low-paying and low-skill jobs. Government funded outreach projects for women designed to prepare and place women in pre-apprenticeship, apprenticeship, and traditionally male blue-collar jobs have increased from one program in 1971 to over eighty in 1978. Now it is time to determine the effectiveness of these programs and to analyze which combination of factors is optimal-- the project designs, the skills/characteristics of women selected, the support/training offered, and the follow-up services.

Preparing Personnel to Teach Non-Traditional Vocational Education

Roslyn Kane

The National Center for Research in Vocational Education (NCRVE)
Ohio State University
1960 Kenny Rd.
Columbus, OH 43210

Available from ERIC ED 164978 or NCRVE IN 137 $3.80

1978

The impetus for developing a model to retrain women teachers and skilled women to become teachers in traditionally male-intensive secondary vocational education has emerged from a combination of problems and issues. The most pertinent of these involve the factors of supply and demand, coupled with the need to reduce sex stereotyping and bias in employment. A retraining program should respond to the need for female teachers in male-intensive voca-

tional programs by state and should identify where the need for such a program is greatest. The major conceptual issues that must be addressed in proposing a retraining model include the characteristics of the women for whom the program is being designed, the certification requirements of the state, job growth potential, and time required to attain skill levels and operate the retraining model. Other factors involved in planning the model are evaluation, funding sources, and packaging the program. The two areas that consistently offer the most opportunities for employing teachers in male-intensive vocational programs in most states are trade and industrial education and industrial arts. Some aspects to consider in retraining women in these areas are program design, work experience, competency-based programs, and preservice and in-service training. Recruitment practices, selection of applicants for pilot programs counseling, and various support programs must be carefully planned to insure that the first group of women entering these positions have a positive and successful experience.

Guidance and Counseling of Women Entering Non-Traditional Careers

Helen S. Farmer

The National Center for Research in Vocational Education (NCRVE)

Available from ERIC ED164976 or NCRVE JN 133 $4.50

1978

Focusing on counseling programs and support services for increasing the participation of women (postsecondary level) in occupations traditionally dominated by men, a study examined opportunities, needs, and support systems relevant for women seeking to enter either nontraditional professional or nonprofessional occupations. The data collected covered the following categories: opportunities in nontraditional professional occupations; characteristics of women choosing traditional and nontraditional professional occupations; counseling/support services for women in math, science, and management; role models used to increase nontraditional participation; counseling services/resources for college women; counseling services aimed at changing change agents; legislative support for women entering nontraditional occupations; participation of and support programs for women in nontraditional, nonprofessional occupations; and apprenticeship training. Positive trends were identified in several nontraditional occupational fields where female enrollments in professional training have increased during the past decade. Seen as a result of several factors rather than the result of any one programmatic effort, these increases were facilitated by legislation and efforts by states and institutions to recruit more women. Promising projects were identified that aimed at influencing educators, parents, and students to change their attitudes and behaviors.

Sex-Fair Interest Measurement: Research and Implications

Carol Kehr Tittle and Donald G. Zytowski, editors

School of Education
Univ. of North Carolina
Greensboro, N.C. 27412

Available from ERIC ED 166416 MF-$.83 HC-$8.69 Plus Postage

1978

This book of readings for counselors, researchers, faculty, graduate students, and policy-makers provides information regarding issues on sex fairness and sex bias in occupational interest measurement. The papers are presented in three sections, with each section prefaced by introductory comments by the editors. The first section, an introduction, contains two papers: Issues of Sex Bias and Sex-Fairness in Career Interest Measurement and A Case History of Change. The next section, on research on sex-fairness of interest inventories, presents studies grouped according to the type of scale construction method used: (1) homogenous scales, (2) occupational scales, and (3) interests of special groups. Some representative titles included under each of these three groupings are, respectively, (1) Neutralizing Sexist Titles in Holland's Self Directed Search: What Difference Does It Make? and Validity of Sex Balanced Interest Scales; (2) Strong Vocational Interest Blank: One form or two? and Validity Generalization of the Men's Form of the Strong Vocational Interest Blank with Academically Able Women; and (3) On Measuring the Vocational Interests of Women. The last section, on implications of recent development, contains two papers: Implications of Recent Development for Research in Career Interest Measurement, and Selection and Use of Career Interest Inventories. Appended materials include NIE Guidelines for Assessing Sex Bias and Fairness in Career Interest Inventories, and Illustration and Interpretation of The NIE Guidelines.

WOMEN AND MATHEMATICS

-1-
AN - ED142906
TI - Influences of Selected Cognitive, Affective and Educational Variables on Sex-related Differences in Mathematics Learning and Studying
AU - Fennema, Elizabeth
SO - Oct 1976; 1pp
- RIE78JAN
AV - EDRS Price MF-$0.83 HC-$3.50 Plus Postage.(68 MF).
AB - This paper offers a detailed review of the literature concerning sex differences in the learning of mathematics. It identifies cognitive, affective and educational variables which have been either shown or hypothesized to contribute to sex-related differences in mathematics learning. The author analyzes each study in detail. One important finding is that many studies crediting boys with more mathematical ability than girls were carried out on populations in which the boys had actually studied more math than the girls. The author believes that if the amount of time spent learning mathematics is equated for males and females, educationally significant sex-related differences in math performance will disappear. Much evidence is presented to support this belief. She concludes with recommendations in three areas: (1) directions for research; (2) intervention or demonstration projects; and (3) general considerations to optimize the chances that the money spent will accomplish its goals, i.e, to improve females' participation in mathematics now and in the future. (Author/BP)

-2-
AN - ED128195
TI - Mathematics Learning: What Research Says About Sex Differences. Mathematics Education Reports
AU - Fennema, Elizabeth, Ed.
SO - Dec 1975; 51pp
- RIE77JAN
AV - EDRS Price MF-$0.83 HC-$3.50 Plus Postage.(1 MF). Information Reference Center (ERIC/IRC), The Ohio State University, 1200 Chambers Road, 3rd Floor, Columbus, Ohio 43212 ($1.75)
AB - This volume presents four papers originally drafted for a symposium on sex differences and mathematics education held at the 1974 meeting of the American Educational Research Association. Subsequent to the AERA meeting the papers were revised. The paper by Fox reviews results of several contests to identify junior high school students who were precocious in mathematical ability, and subsequent instructional experiments aimed at improving the mathematical achievement of able girls. Aiken's paper presents factor analytic data concerning sex differences in attitudes toward mathematics and discusses several hypotheses to explain these differences. Armstrong's paper discusses results of factor analytic studies of sex differences in mathematics achievement and intelligence. Fennema's paper focuses on the role of spatial ability in learning mathematics

and the relationship of this ability to sex differences in mathematics achievement. (SD)

-3-
AN - ED142867
TI - The Effects of Sex Role Socialization on Mathematics Participation and Achievement
AU - Fox, Lynn H.
SO - Dec 1976; 2pp.
- RIE78JAN
AV - EDRS Price MF-$0.83 HC-$6.01 Plus Postage.(119 MF).
AB - The primary focus of this paper is on understanding factors related to sex differences in mathematics achievement with particular attention to course-taking. The perception of the usefulness of mathematics for future educational and career plans and the support or lack of support from significant others appear to be the major factors associated with women's decisions to elect or not elect advanced courses in mathematics. These factors are in turn influenced by the stereotype of mathematics as a male domain. Other factors associated with course-taking and achievement are attitudes towards mathematics, feelings of self-confidence, and values. Certain educational policies and practices tend to reinforce sex-role stereotypes while some practices may promote greater course-taking and achievement. The organization of the research reported in the body of this paper is as follows: (1) Perceptions of the Career Relevance of Mathematics; (2) Influences of Significant Others; (3) The Perception of Mathematics as a Male Domain; (4) Attitudes, Self-Confidence and Values; and (5) Educational Policies and Practices. The research studies were rather consistent in support of the premise that sex differences in mathematics achievement result, at least in part, from social influences. (Author/JLL)

SEX EQUITY IN CAREERS AND EMPLOYMENT

General Resources and Legislation

Career Decision Making and Counseling

Women and the Labor Market

Practices to Reduce Sexism in Vocational and Career Education

GENERAL RESOURCES AND LEGISLATION

-1-
AN - ED114598
TI - Chapter 622: Massachusetts Law, Women, and Vocational Education: Final Report
AU - Healy, Regina; Lund, Diane
SO - Sep 1975; 264pp
- RIE76APR
AV - EDRS Price MF-$0.83 HC-$14.05 Plus Postage.(3 MF).
AB - The study has presented a case history of the evolution, passage, and early implementation in vocational education of a Massachusetts law, the first of its kind in the country, designed to counter practices and policies in public education which resulted in students receiving different treatment solely on account of their sex. Analysis of the Federal and State legislative history from 1906 until the present has revealed that early legislation encouraged the separation of vocational programs by sex as a way of meeting what was then viewed as the special needs of girls. Later legislation continued this separatism, leading to the isolation of vocational education programs for females. Analysis of the data pertaining to Massachusetts' vocational education has clearly demonstrated the existence of a separate system of education in which females have not participated equally with males. The study recommends a series of corrective actions which the State Board of Education could undertake. The 90-page appendix contains separate system data from localities and regions, supplementary documents (student questionnaire, Chapter 622 recommendations/regulations/policy statements and educational specifications in response to Chapter 622), and selected references. (Author/EA)

-2-
AN - ED154199
TI - Race and Sex Compliance Issues in Vocational Education
AU - McClure, Phyllis
SO - (17 Oct 1977); 1pp
- RIE78OCT
AV - EDRS Price MF-$0.83 HC-$2.06 Plus Postage.(45 MF).
AB - Intended to raise race and sex compliance issues to be addressed by the National Institute of Education (NIE) in its congressionally mandated study of vocational education, this paper defines Title VI (Civil Rights Act of 1964) and Title IX (Education Amendments of 1972) compliance issues regarding the level of minority (black Americans) and women student and staff participation in vocational schools. An introductory section briefly reviews the history of Federal vocational legislation with reference to equality of opportunity. In Section I the three barriers that black and female students encounter to their attending the best vocational schools are discussed: geographical location of schools, segregation within school districts, and admission criteria. Section II suggests the need for more evidence to document discrimination in federal and state funding

of vocational education. Section III examines to what extent vocational training perpetuates, and how counselors contribute to, sexual and racial stratification in the labor market. While Sections IV and V compare the number of blacks and women who participate in work-study, cooperative education, and apprenticeship programs to their number enrolled in vocational schools, Section VI explores their underrepresentation as teachers in these schools. The recommendations in Section VII for vocational school research by NIE focus on the five areas of finance, construction, governance structure, cooperative education and work study, and admission criteria. (EG)

-3-
AN - ED127520
TI - Selected Annotated Bibliography on Women at Work
AU - Phelps, Ann T.; And Others
SO - Jan 1975; 106pp
- RIE77JAN
AV - EDRS Price MF-$0.83 HC-$6.01 Plus Postage.(2 MF).
AB - This volume contains 240 annotations of books, journal articles and miscellaneous reports from the recent literature concerning women's studies and career guidance for women and girls. The works described range from studies of the labor market participation of women, to research investigations of psychological variables impacting on women's choice of careers. These annotations were developed as part of the literature search function for an NIE-sponsored study that resulted in WOMEN AT WORK: A COUNSELORS SOURCEBOOK. The 240 annotations are organized according to chapter titles and major subheads from the COUNSELORS SOURCEBOOK. Within subhead sections, the individual annotations are presented roughly in their order of relevance to various subtopics in the SOURCEBOOK text. An index of annotation listings follows. Each individual annotation begins with basic citation information (author, title, date of publication and so forth), followed by the 75-150 word abstract. If the document annotated included its own reference list, the number of reference citations it contained is presented in parentheses at the end of the annotation. Each annotation is numbered at the upper left-hand corner. (Author)

-4-
AN - ED149191
TI - The Educational Amendments of 1976 and Their Implications for Vocational Education. Information Series No. 122
AU - Stevenson, William W.
SO - (1977); 1pp
- RIE78JUN
AV - EDRS Price MF-$0.83 HC-$1.67 Plus Postage.(2 MF). National Center for Research in Vocational Education Publications, Ohio State University, 1960 Kenny Road, Columbus, Ohio 43210 (IN 122, $2.35, quantity and series discounts available)

GENERAL RESOURCES AND LEGISLATION

AB - This information analysis paper examines the Educational Amendments of 1976 projecting the effect of the amendments of vocational and technical education which may result and discussing immediate as well as long-range implications of the amendments. Organization of the paper is around areas of special legislative emphasis that will create the greatest change in vocational education: planning, data and information, evaluation, elimination of sex bias and sex stereotyping, special groups (disadvantaged, handicapped, English deficient), and program improvement (research and curriculum). Overall directives of the amendments are summarized and changes in internal operations of departments and programs of vocational education and changes that affect vocational education's relationships with other agencies such as the Comprehensive Employment and Training Act and with the public are discussed. Noting that the law is a good one but that there are problems with how it is funded, the author concludes that planning, data and information, and evaluation systems will probably become more sophisticated and will involve and influence a much broader segment of society, that the thrust to eliminate sex bias and stereotyping will hopefully cause vocational education to become more open and accepting in both programs and staffing, and that research has a tremendous challenge in providing the understanding and knowledge needed to channel change. (TA)

CAREER DECISION MAKING AND COUNSELING

-1-
AN - ED143992
TI - Career Transitions: The Demand for Counseling. Volume 2
AU - Arbeiter, Solomon; And Others
SO - Dec 1976; 1pp
- RIE78FEB
AV - EDRS Price MF-$0.83 HC-$4.67 Plus Postage.(93 MF).
AB - This is the report of a follow-up study of 400 randomly selected former clients of the Career Education Project (CEP). CEP was an innovative program, funded by NIE, which offered telephone counseling to home-based adults in Providence, Rhode Island. CEP attracted and served clients who were predominantly female, white, and 20-34 years old. They were most likely to be married with one or two children at home, with incomes of $5000-15,000, of varied educational attainment. The few males using the service were single, under 30, with incomes of less than $10,000 a year. CEP clients were overwhelmingly satisfied with the service they received, with their counselors, and with the telephone as a medium of communication. They felt the Project had helped them accomplish their goals, improve their situations, and develop more self-confidence. The type of counseling considered most valuable was in the area of self-evaluation, goal setting, and career decision making. About half the clients indicated they would be willing to pay for the services they had received, but only a few would agree to pay more than $25. (PFS)

-2-
AN - ED143993
TI - Career Transitions: The Demand for Counseling. Volume 1
AU - Arbeiter, Solomon; And Others
SO - (1976); 1pp
- RIE78FEB
AV - EDRS Price MF-$0.83 HC-$3.50 Plus Postage.(73 MF).
AB - This is a report of a survey of the career guidance and counseling needs of 401 representative in-transition adults in the United States. None were full-time students, and all were either undergoing or anticipating job or career changes. The survey determined that 36% of the American population between the ages of 16 and 65 is in a career transition status, and these adults are predominantly female, white, between 20 and 39 years of age, and married with one to three children living at home. Adults in transition want career services of all types, but are most interested in specific information on jobs, careers, or educational opportunities. Of all adults, the least educated express the greatest interest in services and are willing to pay for them. The adults were asked to indicate their degree of interest in various types of services: information, counseling, guidance and training. Generally speaking, when given the choice as to what kind of help they wanted with a particular topic, adults preferred information to the other three services. (PFS)

CAREER DECISION MAKING AND COUNSELING

-3-
AN - ED103787
TI - Workshop on Sex Bias and Sex Fairness in Career Interest Inventories. Report of Proceedings, March 6-8, 1974
AU - Crump, Carol B., Ed.
SO - (Nov 1974); 89pp
- RIE75AUG
AV - EDRS Price MF-$0.83 HC-$4.67 Plus Postage.(1 MF).
AB - This document contains abstracts of papers from a workshop resulting from events stemming from the Office of Education report, A Look at Women in Education: Issues and Answers for HEW. This report charged that a particular career interest inventory was sex-biased, but no operational definition of sex bias was given, the issues involved were not discussed in depth, and no solutions were offered. In planning sessions held prior to the workshop, a set of tentative guidelines for determining sex bias and sex fairness in career interest inventories was refined, a list of workshop participants was developed, and the workshop itself was outlined. This report of the workshop proceedings provides the reader with the background of the workshop, an overview of the sessions, and the effects of the guidelines and other materials resulting from it. (Author/PC)

-4-
AN - ED113609
TI - Issues of Sex Bias and Sex Fairness in Career Interest Measurement
AU - Diamond, Esther E., Ed.
SO - (1975); 239pp
- RIE76MAR
AV - EDRS Price MF-$0.83 HC-$12.71 Plus Postage.(3 MF).
AB - A series of papers and guidelines, resulting from the National Institute of Education (NIE) Career Education Program's study of sex bias and sex fairness in career interest inventories, are presented in the document. Intended for publishers and users of career interest inventories and related services and materials as standards for evaluating sex fairness, the guidelines are presented in the following sections: the inventory itself, technical information, and interpretive information. Eleven papers are presented, dealing with issues identified by the NIE Career Education Program Planning Group study. Chapter topics include: (1) the impact of interest inventories on female career choice; (2) the use and evaluation of interest inventories and simulations; (3-4) technical aspects of interest measurements; (5) the face validity of interest measures; (6) factors affecting a client's view of interest inventories; (7) sex bias in terms of black women; (8) interest inventories and the mature woman; (9) the cost of developing interest inventories; (10) counter-based guidance systems analyses; and (11) legal implications of sex bias in interest inventories. Each paper contains an abstract and is discussed in the overview. Background material is supplied in the forward, and the book is indexed. (LH)

CAREER DECISION MAKING AND COUNSELING

-5-
AN - ED127521
TI - Women at Work: A Counselor's Sourcebook
AU - Farmer, Helen S.; Backer, Thomas E.
SO - Feb 1975; 377pp
- RIE77JAN
AV - EDRS Price MF-$0.83 HC-$20.75 Plus Postage.(4 MF).
AB - This book is designed to complement current literature dealing with the vocational counseling of women. The purpose of the book is to provide counselors with timely information regarding: (1) career opportunities for women in fields traditionally dominated by men; (2) legal rights of women in the world of work; (3) counseling strategies and techniques, particularly as related to the woman's role of homemaker/worker; and (4) current social science research on working women. Particular attention has been given to certain subgroups of women including reentry women, black women, widows, and divorcees. A secondary purpose of the book is to provide suggestions for sex-free counseling procedures such as identification of personal bias, use of occupational information to increase career options open to women, techniques of stereotypic attitude change, and teaching decision-making and problem-solving skills. Included are a list of references, appendices, subtopic titles, and charts and tables. (HLM)

-6-
AN - ED147733
TI - The Measurement and Correlates of Career Decision Making
AU - Harren, Vincent A.; Kass, Richard A.
SO - Aug 1977; 1pp
- RIE78MAY
AV - EDRS Price MF-$0.83 HC-$2.06 Plus Postage.(30 MF). Vincent A. Harren, Dept. of Psychology, Southern Illinois University, Carbondale, Illinois, 62901
AB - This paper presents a theoretical framework for understanding career decision making (CDM); introduces an instrument, Assessment of Career Decision Making (ACDM) to measure CDM with college students; and presents correlational data on sex role and cognitive style factors hypothesized to influence CDM. The ACDM, designed to measure the Tiedeman and O'Hara model of CDM, contains the following scales: (1) Decison Making Style; (2) Decision Making Task-College (DMT-C); (3) Decision Making Task-Major (DMT-M); and (4) Decision Making Task-Occupation (DMT-O). Subjects were undergraduate students. Instrumentation utilized included the ACDM and various attitude and cognitive measures. An analysis of variance was performed. Results indicate the following: (1) DMT-M and DMT-O correlate highly while DMT-C correlates less; (2) the influence of academic class and decisional status are significant, while the magnitude of effect of each is different; (3) correlations between sex, sex role attitudes and cognitive styles, and DMT scales are low. These results support the Tiedeman and O'Hara model, and suggest that the ACDM is an effective measure of this model. This study

implies that: differential counseling by sex is contraindicated in CDM; no direct relationshp exists between sex role attitudes and CDM; and ACDI is a useful counseling aid. (Author/JLL)

-7-
AN - ED095362
TI - Technical Aspects: Problems of Scale Development, Norms, Item Differences by Sex, and the Rate of Change in Occupational Group Characteristics (Revised February 6, 1974)
AU - Johansson, Charles B.
SO - (13 Dec 1973); 60pp
- RIE75JAN
AV - EDRS Price MF-$0.83 HC-$3.50 Plus Postage.(1 MF).
AB - The scope of the paper is to review the two major interest inventories, exploring the nuances and complexities of the technical aspects in their development, their item sampling, norming, scoring, reporting of results, and changing patterns of interests in relation to the differential treatment of sexes; and to suggest guidelines to eliminate or alleviate any potential sex biasing factors. Using the operational definition of sex bias as any factor that may influence a person to limit career opportunities solely on the basis of gender, these areas are explored and the following recommendations, among others, made: Interest inventories should not have separate forms of the instrument for males and females, and the same set of items should be used for both, with care that an item is not inherently more applicable to one gender than the other; in the development of externally based scales, every effort should be made to collect adequate samples of males and females for each occupation represented on the inventory's reporting of results; and caution should be exercised against differentially including items that represent non-valid sex differences. (AU)

-8-
AN - ED127462
TI - Sex Fairness in Career Guidance: A Learning Kit
AU - Stebbins, Linda B.; And Others
SO - 1975; 265pp
- RIE77JAN
AV - Document Not Available from EDRS. Abt Publications, 55 Wheeler Street, Cambridge, Massachusetts 02138 ($15.00 plus $1.50 for shipping/handling)
AB - This learning kit presents self-administered curriculum materials which can be used by counselors and counselor educators to aid in the elimination of sex-role stereotyping and sex bias in career choice. Curriculum materials are organized into four chapters: (1) "Orientation to Sex Fairness" introduces the dual role system, discusses traditional family and occupational roles for both sexes, their antecedents and consequences, and current challenges to the system; (2) "Recommendations for a Comprehensive Sex-Fair Career Guidance Program" offers a

perspective on sex fairness in the counseling process, and also discusses counseling strategies for developing counselor self-awareness for interacting with clients individually or in groups, and for working with others in the client's environment; (3) "Guidelines and Recommendations for Sex-Fair Use of Career Interest Inventories" is designed to help counselors identify sex bias, and to minimize it in administering, reporting, and interpreting these inventories; (4) "A Resource Guide" provides an extensive list of currently available supplementary reading and audiovisual materials, and an annotated bibliography. The text includes pre- and post-assessment techniques, transcripts of counselor-client interactions, and role play scenarios. Separate supplementary materials available as part of the kit include seven different spirit masters, eight role play cards, counselor-client interaction exercises, and an audio-cassette tape of four counseling interviews. (TA)

-9-
AN - ED155568
TI - Sex Role Values: A Neglected Factor in Career Decision Making Theory
AU - Tittle, Carol K.; And Others
SO - Aug 1977; 42pp
- RIE78NOV
AV - EDRS Price MF-$0.83 HC-$2.06 Plus Postage.(1 MF).
AB - This paper is concerned with the relationship of three areas: sex roles, values, and career decision making. The first section is a background statement, briefly reviewing relevant literature to document values in relation to career decision making. The second section examines definitions of values and how values are related to sex roles, both expectations and behaviors. The third section presents preliminary findings of a pilot study which examined the responses of high school students to sets of value terms in the areas of marriage, parenthood, and occupations. Preliminary evidence from the study indicates that many of the values or needs related to marriage, parenthood and occupations may be evaluated similarly by males and females. However, clear sex differences exist in the preferred work patterns: males tended to rate full-time career higher than females did. The last section summarizes the implications of the present work on values related to sex roles. (Author)

-10-
AN - ED098314
TI - Guidelines for Assessment of Sex Bias and Sex Fairness in Career Interest Inventories
SO - Jul 1974; 13pp
- RIE75APR
AV - EDRS Price MF-$0.83 HC-$1.67 Plus Postage.(1 MF).
AB - The draft guidelines are the outcome of a broadly representative three-day workshop and represent a more specific definition than

previously available of the many aspects of sex fairness in career interest inventories and related interpretive, technical, and promotional materials. The diverse concerns of inventory users, respondents, authors, and publishers were taken into consideration and resolved as far as possible. The guidelines are grouped in three sections: (1) The Inventory Itself, (2) Technical Information, and (3) Interpretive Information. Section 1 gives recommendations on the form and content of the interest inventory. Section 2 provides guidelines on the presentation and interpretation of materials, reporting of scores, composition of criterion groups and norm groups, investigation of the validity of interest inventories, and provisions for updating. Section 3 is concerned with the quality of interpretive information provided in detail in the publisher's manual and supporting materials. Footnotes and references are appended. It is believed these guideline recommendations will be valuable for developers, publishers, and users of career inventories. (NH)

-11-
AN - ED127522
TI - Women: Issues of Career Guidance and Vocational Counseling
SO - Jan 1975; 16pp
- RIE77JAN
AV - EDRS Price MF-$0.83 HC-$1.67 Plus Postage.(1 MF).
AB - This report summarizes eight months of work on a study of recent development in career guidance and vocational counseling for women. The original objectives of the project, as stated in the Human Interaction Research Institute (HIRI) contract proposal, were: (1) to review and analyze studies concerning the participation of women in the labor market; (2) to derive the career counseling implication of these findings for women; and (3) to develop the information and conclusions into formats readily usable by both counselors and women who are making career decisions. During the course of the study, research investigations in the subject area published during the past 10 years and studies currently underway were identified and screened for acceptability based on the methodological and statistical soundness of their design. Studies passing the initial screening were classified under one of three general areas: (1) women's participation in the labor force; (2) women's educational and training opportunities; and (3) issues relating to sex differences which affect women's participation in the labor force. Each classified group of documents was analyzed to yield both current and trend data, highlighting differences prior to and after recent federal legislation. The subsequent analysis of the literature highlighted findings as they varied for several subpopulations of women. Finally, the findings derived were synthesized and evaluated to yield information of practical utility to counselors and to women making career decisions. This document is one of the study products developed to contain these findings. (Author)

WOMEN AND THE LABOR MARKET

-1-
AN - ED154753
TI - Labor Market Incentives, Intellectual Competence and College Attendance. Revised
AU - Dresch, Stephen P.; Waldenberg, Adair L.
SO - Mar 1978; 1pp
- RIE78OCT
AV - EDRS Price MF-$0.83 HC-$2.06 Plus Postage.(35 MF).
AB - Presented are the preliminary results of a study of the effects of relative labor market opportunities for the highly educated on high school academic achievement and college attendance. Across regions, a one percent decline in college relative to high school graduates is estimated to induce a decline of 0.3 to 1.4 percent in reading and mathematics test scores of white females. The effects on males are somewhat smaller. Regional labor market effects on college attendance probabilities are found to be even stronger. The effects of family structure and socioeconomic status on academic performance and college attendance are also examined within the context of a general model of human capital formation. (Author/MSE)

-2-
AN - ED133494
TI - Career Stability and Redirection in Adulthood. Report No. 219
AU - Gottfredson, Gary D.
SO - (Nov 1976); 38pp
- RIE77JUN
AV - EDRS Price MF-$0.83 HC-$2.06 Plus Postage.(1 MF).
AB - Age trends in 5-year career stability and change were examined in an approximately one-in-a-thousand sample of 21- to 70-year-old men and women workers. Data on current occupation and occupation five years earlier were collected by the Census Bureau and reorganized for this study using Holland's occupational classification. Career stability increased with age for both sexes, and age differences persisted even when the analyses were restricted to occupation changers or socioeconomically mobile workers. People initially employed in consistant occupations were more stable than those initially employed in inconsistent occupations. Some kinds of mid-career redirection were more common than others. Suggestions for industrial and counseling application and plications for vocational theory are discussed. Tables and references are included. (Author/WL)

-3-
AN - ED142810
TI - Using a Classification of Occupations to Describe Age, Sex, and Time Differences in Employment Patterns. Report No. 223
AU - Gottfredson, Gary D.; Daiger, Denise C.
SO - Feb 1977; 1pp
- RIE78JAN
AV - EDRS Price MF-$0.83 HC-$2.06 Plus Postage.(35 MF).
AB - Employment data from the 1960 and 1970 censuses were organized using the occupational classification system of John Holland to examine age, sex, and level differences in employment and to detect changes over the 10-year period. Data were organized by both kind and level of work in an attempt to answer the following questions: What are the relative frequencies (base rates) of different kinds of work done by men and women? How does the kind of work done differ by level? Are there differences in the kind of work done by people at different ages? and Is the distribution of kinds of work people do changing? Results of the tabulations imply that all categories of work are available to both men and women at the higher educational levels but not at the lower levels. The data also reveal the existence of large sex differences by type of work and level of work within type. Both the 1970 and 1960 tabulations show workers of different ages doing different kinds of work, but the tabulations of age differences for women are not the same as those for men. Finally, trends in the kind of work people do indicate a change in the composition by sex of some occupational categories and also a shift from a technological, thing-oriented occupational structure toward a more extroverted and persuasive or helping workforce. (BM)

-4-
AN - ED142809
TI - A Multiple-Labor Market Model of Occupational Achievement. Report No. 225
AU - Gottfredson, Linda S.
SO - Mar 1977; 1pp
- RIE78JAN
AV - EDRS Price MF-$0.83 HC-$4.67 Plus Postage.(96 MF).
AB - Research was conducted to re-emphasize the importance of functional differences among jobs by showing how they help to better explain the income and status differences that are the main concern of recent stratification research. Status attainment, social class, and vocational psychological approaches to occupational and social differences were integrated into a multiple-market model, which suggests that the value of a determinant varies considerably by kind of work. Also the model's simultaneous use of situs as well as status of work provides a new perspective for developing a more comprehensive theory of social differentiation, for assessing social inequality more accurately, and for reducing inequality more effectively. A subsample of white men (black men, women, and men in artistic

work were excluded) taken from a 1/1000 sample of the 1970 census was used to test the value of the multiple-market model in predicting income as opposed to the traditional one-market model. Results showed that the multiple-market model predicts statistical interactions between situs and other determinants of income. In contrast, the one-market predicts no interactions and no situs differences. (Author/TA)

-5-
AN - ED156780
TI - An Analytical Description of Employment According to Race, Sex, Prestige, and Holland Type of Work. Report No. 249
AU - Gottfredson, Linda S.
SO - Apr 1978; 31pp
- RIE78NOV
AV - EDRS Price MF-$0.83 HC-$2.06 Plus Postage.(1 MF).
AB - Previous work on job availability according to Holland's classification is examined in terms of the following variables: (1) the number of jobs in the U.S. in 1970 by prestige level as well as type of work, (2) the distribution of types of jobs in and out of government service, (3) race and sex differences in type and level of work, and (4) projections for future demand for kinds of labor. The questions raised include: (1) All things except labor demand being equal, what are the chances of getting high versus low level jobs if one enters a realistic rather than a social job? (2) When the distribution of job opportunities does not match the distribution of aspirations of job seekers, how can the counselor encourage realism about job opportunities while at the same time helping individual clients to pursue their aspirations? and (3) Where have women and blacks been most likely to find work in the past and where might opportunities be greatest in the near future? The composition of employment in the U.S. was examined using 1970 data for employed civilians, Holland's occupational typology, and a prestige scale. Results indicate areas where women and blacks are under and over represented. (Author/AM)

-6-
AN - ED142699
TI - Econometric Investigations of Determinants and Returns to Schooling, Training, and Experience. Final Report
AU - Griliches, Zvi; Freeman, Richard
SO - 31 Mar 1977; 2pp
- RIE78JAN
AV - EDRS Price MF-$0.83 HC-$7.35 Plus Postage.(140 MF).
AB - A set of three studies focused primarily on an indepth analysis of the National Longitudinal Survey ("Parnes") data tapes, concentrating particularly on the experience of young men and young women, but collating them also with data on experience and background of other family members available in the parallel surveys. Research was conducted in three major areas (presented

in the three separate papers included): (1) The effects of schooling interruption and work while in school on subsequent educational and economic success of individuals (The ability-schooling-income relations were analyzed using data on families); (2) re-examination of estimates of returns to schooling and the effect of controlling for ability on them; and (3) the changing economic market for college graduates and its impact on the individual returns to education and the educational system as a whole, and its effect on traditional black/white differences in socioeconomic attainment. Some major implications of the research follow: (1) College training may no longer be as valuable an investment in human capital as in years past, suggesting more emphasis o other forms of vocational training. (2) the role of learning by experience or on-the-job training suggests the need for substantial work on the "actual" way in which human capital accumulation occurs and the possible tools for influencing it, and (3) given the current state of knowledge and data on the economic success of individuals, neither family background nor measured ability account for a major portion of the observed variance in the economic success of individuals. (TA)

-7-
AN - ED135998
TI - Education, Labor Market Experiences, and Current Expectancies of Black and White Men and Women. Final Report
AU - Gurin, Patricia; Morrison, Betty Mae
SO - Sep 1976; 199pp
- RIE77AUG
AV - EDRS Price MF-$0.83 HC-$10.03 Plus Postage.(3 MF).
AB - The research reported here examines the role of psychological expectancies as labor market supply characteristics of black and white men and women. Secondary analyses are carried out on data provided by the Survey Research Center 1972 national probability sample of adults 18 years and older drawn for the presidential election study. The report focuses on race and sex differences in previous labor market experiences, the relationship of these past experiences to current employment expectancies and general feelings of efficacy, and finally the effects of both market experiences and expectancies on current behavior. Psychological expectancies are emphasized as the elements of motivation that should have unusual significance for understanding the dynamics of race and sex discrimination in the labor market. There are five major chapters. Chapter 1 describes the sample and measures used in the analyses reported here. Chapter 2 describes the market experiences, perception of obstacles, and current expectancies of black and white men and women. Chapter 3 examines the interrelationships of these variables with particular focus on the effects of years of schooling and previous market experiences on current expectancies. Chapter 4 presents a general causal model in which expectancies are viewed as intervening influences between current market outcomes and variables at two earlier stages, original educational attainment at stage one and subsequent market experience at stage two. Three types of current

market outcomes are analyzed with application of the model to the job status of blacks and whites, to women's and men's search behavior, and to the work intentions of white housewives. Chapter 5, on implications for counseling and future research, describes the types of expectancy and experience measures and the design that will be needed to extend this line of interdisciplinary labor market research. (WL)

-8-
AN - ED117474
TI - Using a Typology of Persons and Environments to Explain Careers: Some Extensions and Clarifications. Report No. 204
AU - Holland, John L.; Gottfredson, Gary D.
SO - Oct 1975; 53pp
- RIE76JUN
AV - EDRS Price MF-$0.83 HC-$3.50 Plus Postage.(1 MF).
AB - The paper uses John L. Holland's theory of careers to explain certain common career phenomena and concepts. An understanding of careers requires useful answers for four fundamental questions relating to vocational choice, vocational stability and instability, and vocational congruence. The theory of careers attempts to answer these fundamental questions by using a few carefully defined concepts (such as theoretical personality types and environmental models) to explain vocational behavior. A modern differentialist view can better reinterpret some common vocational developmental concepts, such as those associated with vocational maturity, personal integration, identity, crystalization of interests,, and vocational adjustment than a developmental view. The typology of persons and environments is more useful than any of the life stage strategies in formulating a theory of careers applicable to the entire life span. It also is suitable for assessing career changes and crises, as well as for explaining the career experiences of women and minority groups. In summary, the typology can be used to organize occupational materials and experiences, to explain and interpret vocational data and behavior, and to plan remedial activities. It can serve as the basis for an entire vocational assistance orientation including self-use materials and, where needed, personal and group counseling. (Author/JR)

-9-
AN - ED143800
TI - Evaluating the Return to the Education of Women: Economic Rationale for Sex Differences in Education. Final Report
AU - Madden, Janice Fanning
SO - Jan 1977; 1pp
- RIE78FEB
AV - EDRS Price MF-$0.83 HC-$3.50 Plus Postage.(54 MF).
AB - The study, using a subsample of young men and women from the 1969 National Longitudinal Survey, examined the effects of differences in educational attainment on wages and occupational status by sex

and race. In particular, the economic rationale for women's higher rates of high school graduation and lower rates of college attendance and g raduation were explored. It was found that, relative to men, women experience greater gains in wages and in occupational status from high school graduation, and greater gains in wages but lesser gains in occupational status from college graduation. It was concluded that economic factors provide rationale for the greater high school graduation rates of women, and a possible rationale for the greater college graduation rates of men. (Author)

-10-
AN - ED146363
TI - Career Patterns of a National Sample of Women. Research and Development Series No. 95 (Re-issue). Final Report
AU - Vetter, Louise; Stockburger, David W.
SO - (1977); 2pp
- RIE78APR
AV - EDRS Price MF-$0.83 HC-$6.01 Plus Postage.(110 MF).
AB - Findings of a study are reported that applied two career pattern systems for women to historical data collected in 1967 on a national sample of 4,996 black and white women ages 30-34. Information was provided on (1) the proportion of women who can be classified into each career pattern in the system(s), and (2) relationships of career development variables to the career patterns. The first career pattern system was based on the milestones of leaving school, marriage, and the acquisition of the first child, with the intensity of work between these milestones in terms of the percentage of time spent in the labor force taken into account. The second set of career patterns was based on Donald Super's system of career patterns. Both career pattern systems were analyzed separately for black and white women. Means, standard deviations, and correlations were calculated for each career pattern in both systems for career development variables, including education, relative desirability of occupational assignment, age at milestones, proportion of time spent in the labor force, income, family related variables, and attitudes toward work. In this report, detailed findings are reported on career development variables, and five areas of implications of the data are presented: career patterns, career development, number of children, base data, and educational implications. (TA)

-11-
AN - ED157900
TI - The Economic Benefits of Schooling and Reading Competence
AU - Young, Kan-Hua; Jamison, Dean T.
SO - May 1975; 1pp
- RIE78DEC
AV - EDRS Price MF-$0.83 HC-$4.67 Plus Postage.(84 MF).
AB - To calculate the economic benefits of schooling and compensatory

education, a statistical model estimated the effects of schooling and literacy on earnings and employment. The literacy measure was obtained for a probable sample of the U.S. population in 1972, from the National Reading Survey. The measure was administered with a background demographic questionnaire to 2,308 individuals, age 25 to 60, who reported some earnings in 1972. Variables examined were: 1972 earnings, wage rate, work hours, years of schooling, reading score, potential work experience, other income, father's education, mother's education, age, race, sex, and employment status. Three models were used: simple earnings function, labor market, and educational achievement. Methodologically, both recursive and simultaneous models were examined in both the labor market and the educational achievement analysis. In terms of increased annual earnings, estimated benefits of a hypothetical compulsory education for a representative individual are the highest for white males ($3,810) and the lowest for white females ($1,370). Corresponding benefits for black males and females are $2,580 and $1,940. Estimated benefits of a low target compensatory reading program for a representative individual are $323 and $273 for white males and black males, only $12 for white females, and negative for black females. (CP)

PRACTICES TO REDUCE SEXISM IN VOCATIONAL AND CAREER EDUCATION

-1-
AN - ED156918
TI - Current Perspectives on the Role of Career Education in Combatting Occupational Sex-Role Stereotyping
AU - Evenson, Jill S.; O'Neil, Mary L.
SO - May 1978; 1pp
- RIE78DEC
AV - EDRS Price MF-$0.83 HC-$2.06 Plus Postage.(40 MF).
AB - A study was conducted to determine the extent to which student needs for nonsexist career guidance and education are met by existing and developing career education strategies at the secondary school level and to propose areas for further development. Through a literature search and the examination of teachers, counselors, and students, a set of needs was identified and organized into three categories: knowledge about occupational sex-role stereotyping and career decision-making; non-sexist attitudes; and behavior or activity to reduce stereotyping and broaden career choice. From the little information available on strategies designed to deal with this problem, it was determined that most strategies concentrate on the knowledge and attitude needs. Factors that contribute to effective strategies were found to include the following: in-service training for school staff; use of content material based on the students' experiences; early intervention; and follow-up support for students. Since career education can play a vital part in reducing sex-role stereotyping, this report recommends that it focus on the above four factors as well as on (1) activities that increase young women's career motivation and help them plan realistically for the future; (2) resource centers for school personnel for non-sexist career education and curricula materials; (3) evaluation studies; and (4) community-based programs and activities that aid students in increasing career awareness. (Author/ELG)

-2-
AN - ED127519
TI - Women at Work: Things are Looking Up
AU - Farmer, Helen S.; Backer, Thomas E.
SO - Feb 1975; 64pp
- RIE77JAN
AV - EDRS Price MF-$0.83 HC-$3.50 Plus Postage.(1 MF).
AB - This booklet provides information for girls and women in eight areas of career planning and information: (1) how to use the booklet; (2) new developments; (3) new opportunities; (4) new laws; (5) barriers; (6) some beliefs and the facts about them; (7) taking action; and (8) how to obtain more information on the subject of the book. Readers are instructed to scan sections which seem most related to their questions and needs, including the resource materials in each section. The third section discusses new career opportunities opening up for women. The fourth section presents information about laws relating to women, their education, and employment. The fifth section deals with

barriers to employment such as marriage, family, and a long absence from the labor force. The sixth section deals with beliefs about working women and the findings of research on these beliefs. The seventh section provides information on planning for a career, attaining more education, and looking for a job. The last section is a listing of reference materials and organizational addresses dealing with women and careers. (HLM)

-3-
AN - ED150479
TI - A Career Planning Program for Women: The Experience "CUE"
AU - Khosh, Mary N.
SO - (1977); 2pp
- RIE78JUL
AV - EDRS Price MF-$0.83 Plus Postage. HC Not Available from EDRS.(123 MF). NAWDAC, Publications, 1028 Connecticut Avenue, N.W., Suite 922, Washington, D.C., 20036 ($5.50 each)
AB - This monograph describes a program developed to meet the needs of adult women continuing their education and planning careers. Experience CUE (C=career; U=you, the woman in the middle; E=education) was designed for women who are moving into a role change and need assistance in planning for it. The monograph describes in detail the group counseling sessions, held weekly for eight consecutive weeks in two-hour blocks with 12 women per group. In addition, there is an extensive bibliography and a literature review. (PFS)

-4-
AN - ED115975
TI - Career Education and Minorities. Staff Development in Career Education for the Elementary School: Module 7
AU - Norton, Robert E.; And Others
SO - (1975); 43pp
- RIE76MAY
AV - Document Not Available from EDRS. Center for Vocational Education, Ohio State University, 1960 Kenny Road, Columbus, Ohio 43210 (Order Number S06VII, $5.00 ea.; Complete set of seven, Order Number S06, $15.00 per set)
AB - The module is the seventh of a series of seven discrete modules designed to assist elementary school teachers in the development of a career education program or to enrich an already established program. Module 7 may be used separately or in conjunction with the other modules. Module 7 deals with career education and minorities, specifically racism awareness and sex-role stereotyping. Also included is a coordinator's unit addressing concerns, reservations, and resistence relating to career education for minorities. (Author/LJ)

PRACTICES TO REDUCE SEXISM IN VOCATIONAL AND CAREER EDUCATION

-5-
AN - ED149179
TI - Sex Fairness in Career Education. Information Series No. 109
AU - Peterson, Maria; Vetter, Louise
SO - (1977); 1pp
- RIE78JUN
AV - EDRS Price MF-$0.83 HC-$2.06 Plus Postage.(43 MF). National Center for Research in Vocational Education Publications, Ohio State University, 1960 Kenny Road, Columbus, Ohio 43210 (IN 109, $3.25, quantity and series discounts available)
AB - Issues relating to sex fairness in career education discussed in this information analysis paper include the basis of concern for sex fairness in career education, the current status of women in employment, leadership positions in the career education work force, and ways to make career education sex fair for both women and men. Characteristics of the literature related to sex fairness in career education are summarized as follows: (1) Data on the status of women in employment are generally available but it is often difficult to determine what conditions influenced the data. (2) Women are underrepresented (a) in the awarding of federal grants and contracts by the Office of Career Education and the Bureau of Occupational and Adult Education, United States Office of Education, (b) in career education leadership positions in state departments of education, and (c) on the National Advisory Council for Career Education. (3) Sex stereotyping and sex bias in publications, career counseling, materials, textbooks, and curricular materials are extensively documented. (4) Within the next two years a variety of inservice sex fairness training materials should be available. (5) Focus seems to be on equality for women rather than equality for both sexes. Appendixes contain references and list resources for sex fairness materials and materials for use with students. (TA)

-6-
AN - ED149189
TI - Sex Fairness in Vocational Education. Information Series No. 120
AU - Schenck, John Phillip
SO - (1977); 1pp
- RIE78JUN
AV - EDRS Price MF-$0.83 HC-$3.50 Plus Postage.(54 MF). National Center for Research in Vocational Education Publications, Ohio State University, 1960 Kenny Road, Columbus, Ohio 43210 (IN 120, $3.80, quantity and series discounts available)
AB - A review and analysis of programs and strategies which help program planners and curriculum developers eliminate sex bias in vocational education are presented in this state-of-the-art paper. It is noted that vocational educators are only now beginning to report in any volume on the subject of sex fairness and that there is little doctoral research in this area. The following topics and issues are discussed: sex fairness in vocational education as a warranted assumption, impact on careers of sex-role stereotyping and sex bias in vocational education,

forces promoting sex fairness in vocational education (including socialization, instructional materials, vocational interest inventories, world of employment), and forces promoting the eradication of sex unfairness in vocational education (including legislation). Recommendations are made to maximize reduction of sex unfairness in vocational education. These include the following: enforce appropriate laws, provide overt support, take affirmative action, provide new models for vocational aspirations, require inservice education for vocational educators, re-examine the principles of vocational education, and disseminate information. (TA)

-7-
AN - ED150533
TI - Counseling Women for Nontraditional Careers
AU - Smith, Walter S.; And Others
SO - (1977); 1pp
- RIE78JUL
AV - EDRS Price MF-$0.83 Plus Postage. HC Not Available from EDRS.(68 MF). ERIC/CAPS, 2108 School of Education Building, the University of Michigan, Ann Arbor, 48109 ($4.00)
AB - This monograph presents an overview of the employment situation in regard to women, describes trends occurring in women's career choices, and presents five hypotheses, with suggestions for accompanying activities, from which counselors may choose in counseling women for nontraditional careers. The five alternative hypotheses are as follows: (1) women need special remediation to overcome deficiencies such as math inability; (2) women need to be sold on the appropriateness of certain careers for a woman; (3) women need to learn how to accommodate their career and other adult roles; (4) women need to become assertive career pursuers; and/or (5) women must learn to deal with discriminatory barriers to their nontraditional career pursuit. An extensive resource list, divided into separate sections for easy reference, is also provided for readers who wish to explore beyond the information presented here. (Author)

-8-
AN - ED124729
TI - Women and the World of Work
AU - Tobin, Nancy; Wilson, Barbara Lazarus
SO - (1975); 63pp
- RIE76NOV
AV - Document Not Available from EDRS. Career Education Project, Education Development Center, 55 Chapel Street, Newton, Massachusetts 02160 (No price given)
AB - One of the products developed by the Home and Community-Based Career Education Project, the booklet focuses on the concerns of women who want or need to begin or resume a career. It describes today's working woman, examines her options, and presents practical suggestions for overcoming obstacles in planning for

and implementing career decisions. Included are an analysis of the labor market, the reasons for the current status of working women, and the advantages and problems associated with entering formerly male-dominated areas of the labor market. In discussing areas related to personal assessment, job search techniques, and fears about going back to work or school, the booklet may be used to provide counselors and clients with information about the common educational and employment problems of women. The appendix adds information about civil rights, equal employment opportunities, equal pay, and other antidiscrimination legislation, with advice on using the laws. (MF)

-9-
AN - ED120630
TI - Women in Illustrations or Society Is Myopic. Sex Stereotyping in Illustrations in Career Materials
AU - Vetter, Louise
SO - (1 Sep 1975); 11pp
- RIE76AUG
AV - EDRS Price MF-$0.83 HC-$1.67 Plus Postage.(1 MF).
AB - This paper investigates how well today's career materials represent women workers in illustrations. The specific populations reported on in this paper, from which two samples were selected, were: (1) the student materials (N=1091) listed in the Vocational Guidance Quarterly (VGC) "Current Career Literature" bibliographies from 1970 through 1973, and (2) the high school level career education materials (N=168) listed in the two bibliographies prepared by the VT ERIC Clearinghouse. Specific materials were selected from the bibliographies and an instrument to assess the materials was developed, pilot-tested, revised and used. Variables assessing the illustrations included: (1) number of men and women; (2) environmental setting (indoor-outdoor); (3) observable interaction between people illustrated; (4) minority group; (5) minority group by sex; (6) occupations by sex; and (7) occupations by minority group. Results indicate that the current status of women in careers is not adequately represented in career materials. (Author/HMV)

-10-
AN - ED109559
TI - Women in the Work Force: Follow-Up Study of Curriculum Materials. Research and Development Series No. 102
AU - Vetter, Louise; And Others
SO - (1975); 60pp
- RIE75DEC
AV - EDRS Price MF-$0.83 HC-$3.50 Plus Postage.(1 MF).
AB - A followup of the original results of a curriculum unit, "Planning Ahead for the World of Work", for high school women was conducted one year after the unit was tested. The followup included 247 of the 326 home economics students who participated in the original study. The conclusions concerning the retained

effect of the unit were: (1) some of the gain in the experimental group on knowledge of the world of work was retained, but experimental and control group responses were not significantly different; (2) the experimental group retained higher scores on the Challenge attitude scale; (3) the control group gained a desire for economic mobility and extrinsic rewards in the 12th grade equal to that held by the experimental group; and (4) the status level of students' stated first occupational choices tended to remain the same. Recommendations for further use of the curriculum unit are discussed. The authors found that the optimal use of the unit appears to be at the ninth grade level. (Author/PC)

-11-
AN - ED147560
TI - Sugar and Spice Is Not the Answer. A Parent Handbook on the Career Implications of Sex Stereotyping. Research and Development Series No. 129
AU - Vetter, Louise; And Others
SO - (1977); 1pp
- RIE78MAY
AV - EDRS Price MF-$0.83 Plus Postage. HC Not Available from EDRS.(72 MF). National Center for Vocational Education Publications, Ohio State University, 1960 Kenny Road, Columbus, Ohio 43210 ($4.50)
AB - How children's career options are limited by sex stereotyping, why it is important that they not be limited, and what parents can do about it are discussed in this handbook. The myths and realities of women in the work force are reviewed in the introduction. The first section, "Take A Look At Women's Work," discusses the pattern of employment that exists for women in America; the third and fourth discuss why women as a group are confined to lower-level occupations and how the differential treatment of children on the basis of sex teaches boys and girls stereotyped behavior that limits their career choices. The next section describes how counselors, teachers, administrators, and educational materials tend to reinforce the idea that proper behavior for girls differs from that for boys. The remaining sections of the handbook list questions on sex stereotyping for discussion; among them are questions about career planning that can be discussed with children. Questions are included about the operation of schools to guide analysis of the prevalence of sex stereotyping as a school practice. Activities for parents in the home and community are suggested. A bibliography of books, pamphlets, and magazines that include additional information on topics discussed is provided. (TA)

PRACTICES TO REDUCE SEXISM IN VOCATIONAL AND CAREER EDUCATION

-12-
AN - ED072175
TI - Women in the Work Force: Development and Field Testing of Curriculum Materials. Final Report.
AU - Vetter, Louise; Sethney, Barbara J.
SO - Dec 1972; 62pp
- RIE73MAY
AV - EDRS Price MF-$0.83 HC-$3.50 Plus Postage.(1 MF).
AB - To aid girls in considering future alternatives and making plans for labor force participation and adult female roles, curriculum materials and associated measures of knowledge, attitudes, and plans were developed and pilot tested with 100 girls in Grades 7, 9, and 11. Materials and measures were revised on the basis of pilot test data, including evaluative comments from participating teachers and students and were then submitted to experimental evaluation with 32 Grade 7, 9 and 11 students enrolled in home economics classes. Major conclusions concerning the effects of the unit were: (1) Students gained information about the world of work and about women's roles in employment, (2) Students' attitudes changed in the direction of more acceptance of the challenges of employment a d more acceptance of employment after marriage, (3) Students showed no significant change in choices of occupation, and (4) Students indicated more plans to work after children begin school and after children are grown. Recommendations for uses of the unit are included, and the study questionnaire, instructions, and data tables are appended. (Author/SB)

-13-
AN - ED126360
TI - EPIE Career Education S•E•T•. Volume 1: How to Select and Evaluate Instructional Materials. •••Selection and Evaluation Tools
SO - (1975); 110pp
- RIE76DEC
AV - Document Not Available from EDRS. EPIE Institute, 463 West Street, New York, New York 10014 (Volume 1, $10.00; Both volumes, $31.00)
AB - The document, one of two volumes which comprise the EPIE (Educational Products Information Exchange) Career Education S•E•T• (Selection and Evaluation Tools), is designed to provide schools with information needed for the evaluation and successful selection of instructional materials. Chapter 1 provides a device by which teachers and administrators can pinpoint their schools' position on career education and the procedures for materials selection. It shows how to measure the depth of the career education concepts presented within a framework of the instructional design of materials under consideration. Chapters 2 and 3 present evidence of race and sex bias found in career education materials, provide checklists for identifying bias in any materials, and suggest methods for counteracting bias found in materials being used. The final chapter explains how to assess

producers' evaluation activities so that materials selectors can evaluate the efforts publishers make toward the improvement of their materials. Appended are: a list of State career education coordinators, a list of career education periodicals, a list of manuals describing skill-training materials, and a feedback form. A table of contents for volume 2 is also included. (Author/MS)

-14-
AN - ED130110
TI - Help Wanted. Sexism in Career Education Materials. How to Detect It and How to Counteract Its Effects in the Classroom
SO - (1975); 51pp
- RIE77MAR
AV - Document Not Available from EDRS. Women on Words and Images, P. O. Box 2163, Princeton, N. J. 08540
AB - A 4-part summary of research on career education materials comprises this report. First, it provides some documentation on the extent to which sex-role stereotyping was found in an analysis of more than 80 randomly selected K-12 and post-secondary career education materials. Second, the report offers general advice to teachers and counselors for detecting and counteracting sexism in those materials currently in classroom use. Third, it presents a teacher/counselor activity checklist for enriching career opportunity awareness. Finally, the report lists organizations and products which are considered nonsexist sources and resources. A tabulation of the occupations derived from the materials studied is appended. (TA)

SEX ROLES IN EARLY CHILDHOOD SOCIALIZATION

SEX ROLES IN EARLY CHILDHOOD SOCIALIZATION

-1-

- ED152848
- Development of an Alternative Form of the Maternal Teaching Style Instrument
- Benson, Arthur Jerry; Sandler, Howard
- 25 Jul 1973; 1pp
- RIE78AUG
- EDRS Price MF-$0.83 HC-$2.06 Plus Postage.(47 NF).
- The Maternal Teaching Style Instrument (MTSI) was developed by C. R. Barbrack in 1970, to record mother-child interactions. The mother's teaching style was observed as she helped her child complete a series of tasks. Both nonverbal (gesture, physical contact, direction, positive and negative feedback) and verbal behaviors (cue label, direction, question, information, positive and negative feedback) were observed. H. Sandler, L. Stewart, and Barbrack developed a revised form in 1971, as well as a new coding form. Sandler also developed an alternative MTSI in 1973. Form materials for the 1971 and 1973 instruments, directions for administration and coding, the scoring grid, and coding category descriptions are appended. Research studies which have used various forms of the MTSI are described; this includes the evaluation of home-based intervention programs in which the mother's teaching effectiveness is measured. In the present study, the 1971 revision and 1973 alternative forms were administered to 17 mother-child pairs. Data were analyzed according to race, sex of the child, and mother's age. The findings indicated that the MTSI differentiated teaching style behaviors, and that mother's age was the only demographic variable to correlate significantly with teaching behavior. Comparative analysis of both forms demonstrated the validity of the 1971 and the 1973 instruments. (Author/GDC)

-2-

- ED148950
- Sex Differentiation and Sex Identification: Cultural Considerations
- Bolling, John; Hassibi, Mahin
- 30 Mar 1977; 24pp
- RIE78MAY
- Document Not Available from EDRS.
- The present study is part of a larger research project which is concerned with the cultural dimensions of interpretations of sexual differentiation in children's drawings. The basic assumption of this study is that the first figure drawn when a child is asked to draw a person is significantly related to, but does not necessarily establish, the sexual identification of the child. The primary intent of this paper is to introduce the cultural factor as a consideration in identity formation especially as it relates to sex-role preference. The Draw-A-Person Test in a modified form employing crayons was administered as a group test to 3201 children, from 3 to 17, of different ethnic backgrounds. The children were attending public

and private schools in the New York Metropolitan area. The data showed the following: (1) all children did not necessarily draw their same sex first, (2) as children increased in age, the percentage of children who drew the same sex first increased, and (3) there were unexplained or unexpected fluctuations in the curves or percentages. It is suggested that the differences of the shapes of the curves reflect different cultural variables interacting with physiological variables. This is shown in the following findings: (1) at the earlier ages more females than males show same-sex identification (2) during pre-adolescence there is little movement in the curve for the males while there is a decrease in the curves for females.This might mean that the process of sex identification for males is a slower process but without too much turmoil; while with females, pre-adolescence becomes a turbulent state. It is concluded that even if one accepts the premise that sex identification can be represented by drawings, there is no one-to-one correlation at any point. (Author/AM)

-3-
AN - ED153096
TI - Sex Differences in Family and School Influence on Student Outcomes
AU - Epstein, Joyce L.; McPartland, James M.
SO - Sep 1977; 1pp
- RIE78SEP
AV - EDRS Price MF-$0.83 HC-$3.50 Plus Postage.(59 MF).
AB - This paper explores three research issues on adolescent development using an elaborated effects model: (1) Are there consistent sex main effects on a variety of student outcomes? (2) What are the relative influences of family status, family processes, school processes, and individual ability on academic and nonacademic behavior of males and females? and (3) Do the same influence processes operate for males and females or are there important sex interaction effects with family or school characteristics? The study utilizes survey data from 4,079 white students in 10 middle schools and six high schools in Maryland that differ significantly in authority structure. The sample of students from grades 6, 7, 9 and 12 is diverse in social and family processes. Results show: (1) significant sex main effects of five outcomes--self esteem, college plans, academic subject preference, adjustment in school and report card grades; (2) clear differences in patterns of influence of variables--family and school processes are more important for personality and school coping skills, and family status and individual ability are more important for college plans and standardized achievement; and (3) no consistent, significant sex interactions. (Author/MFD)

SEX ROLES IN EARLY CHILDHOOD SOCIALIZATION

-4-
AN - ED142293
TI - Fathering: A Bibliography
AU - Honig, Alice Sterling
SO - Aug 1977; 1pp
- RIE77DEC
AV - EDRS Price MF-$0.83 HC-$4.67 Plus Postage.(78 MF). ERIC Clearinghouse on Early Childhood Education, University of Illinois, 805 West Pennsylvania Avenue, Urbana, Illinois 61801 (Catalog #164, $4.00)
AB - This bibliography on fathering contains over 1000 entries dating from 1941 to 1977. References are organized into 10 sections, each reflecting a major area of interest to theorists, researchers, and clinicians. The ten areas include: (1) role of the father, (2) father and socialization, (3) fathers' contributions to sex role development, (4) fathers and their children's cognitive competence, (5) fathers and infants, (6) fathering and problem behavior in children, (7) children's views on fathering, (8) nontraditional fathering, (9) correlates of urbanization and occupations of fathers, and (10) father absence, loss, or neglect in relation to child behaviors. Some of the entries are annotated. (JMB)

-5-
AN - ED105991
TI - Sex Differences and Sex Role Development in Young Children: An Abstract Bibliography
AU - Howard, Norma K., Comp.
SO - Mar 1975; 33pp
- RIE75SEP
AV - EDRS Price MF-$0.83 HC-$2.06 Plus Postage.(1 MF). Publications Office/IREC, College of Education, University of Illinois, 805 W. Pennsylvania Avenue, Urbana, Ill. 61801 (Catalog No. 127, $1.65)
AB - This selective abstract bibliography cites recent ERIC documents on behavioral differences between preschool and elementary school girls and boys in such areas as moral judgment, school readiness, self esteem, motor performance, aggression, locus of control, and social development. Other documents cited examined sex role development and sex role stereotypes. Sex stereotypes in children's books and textbooks and suggestions for development of nonsexist teaching materials are also discussed in documents cited. Entries included are from "Resources in Education (RIE)" and from "Current Index to Journals in Education (CIJE)", January 1974 through December 1974. (Author/CS)

-6-
AN - ED148472
TI - Sex Role Socialization in Early Childhood
AU - Katz, Lilian G.; And Others
SO - Dec 1977; 2pp
- RIE78MAY
AV - EDRS Price MF-$0.83 HC-$6.01 Plus Postage.(107 MF). ERIC Clearinghouse on Early Childhood Education, University of Illinois, 805 West Pennsylvania Avenue, Urbana, Illinois 61801 (Catalog #171, $4.00)
AB - This paper reviews the theory and research related to the sex role socialization of young children, specifically addressing a range of theoretical and practical issues related to the implementation of the Women's Educational Equity Act. Section I examines the influence of the family on children's sex role development, focusing on differentiated shaping by sex and imitation of same sex models. Topics included are: (1) sex-typing pressure; (2) punishment, aggression and activity level; (3) dependence and independence; (4) achievement motivation; (5) toys; (6) siblings and birth order; (7) parental role differentiation and father dominance; (8) maternal employment; and (9) father absence. Section II deals with sex role and the mass media, with emphasis on the content of television programs and the effects of television viewing. Section III discusses the school's role in stopping its own sex-typing influence and in counteracting the sex-typed attitudes of its students. Implications for school programming and recommendations for further research are presented. A list of more than 150 references is included. (JMB)

-7-
AN - ED148473
TI - Sex Role Socialization in Early Childhood: An Annotated Bibliography
AU - Katz, Lilian G.; And Others
SO - Dec 1977; 1pp
- RIE78MAY
AV - EDRS Price MF-$0.83 HC-$4.67 Plus Postage.(76 MF). ERIC Clearinghouse on Early Childhood Education, University of Illinois, 805 West Pennsylvania Avenue, Urbana, Illinois 61801 (Catalog #170, $3.00)
AB - This annotated bibliography contains 321 references to materials related to sex role socialization in young children. Included are: (1) general references; (2) references on the influence of media, school, and family; and (3) references on curriculum materials. Prepared in conjunction with "Sex Role Socialization in Early Childhood," a paper reviewing theory and research related to the sex role socialization of young children, this bibliography provides annotations for all references cited in the paper as well as for approximately 200 additional references. The bulk of research cited was conducted between 1970 and 1977. (Author/SB)

-8-
AN - ED099287
TI - Work and Family Life. Phase 1. Final Report
AU - Lein, Laura; And Others
SO - (1974); 219pp
- RIE75APR
AV - EDRS Price MF-$0.83 HC-$11.37 Plus Postage.(3 MF).
AB - This is the first of a series of working papers and reports on aspects of modern American families. It investigates the issues and problems facing families with preschool children, when both of the parents are employed. The composite portrait of family styles within a sample of 14 young families begins with a project history. The literature is reviewed, the inception of the project described, and the research design presented. To discover how individuals view their families and relate to them, five research instruments, all appended, were developed: interviews; daily logs; demographic forms; observation instructions; and participant observations. The following chapters each deal with an aspect of one of the series of transformations initiated in the organization of the home by the wife's working. These include allocation of child care and household responsibilities; nonparental child care; pressures, motivations, and satisfactions of parenting in dual-working families; and the coordination of home and work. It was generally concluded that the effects of maintaining primary control over child care are widespread in the family system, that the consequences of the decision of the wife to work extend to the relations between the spouses, and that an image of the irritable wife and mother was one response of the working mother who accepts all cultural expectations without awareness of the psychological strain this induces. Also appended are staff autobiographies, an informed consent document, and coding topics. (Author/KSM)

-9-
AN - ED133083
TI - Parenting
AU - Spock, Benjamin; And Others
SO - Aug 1976; 22pp
- RIE77MAY
AV - EDRS Price MF-$0.83 HC-$1.67 Plus Postage.(1 MF).
AB - Various aspects of child-rearing are covered in this transcript of a program broadcast in the National Public Radio weekly series, "Options in Education." Authors of current popular books on parenting are interviewed. Benjamin Spock discusses changes (including sex role revisions) in his "Baby and Child Care" since the 1946 first edition. Eda LeShan, author of "In Search of Myself and Other Children", explains why she believes the best way to raise children is by remembering how one feels to be a child. The benefits of infant massage are discussed by Frederick LeBoyer. In his book, "Loving Hands", he describes how maternal physical contact helps a baby adjust from womb to outside world. Jean Curtis discusses the subject of her book, "Working Mothers".

Also included are Dorothy and Raymond Moore, whose "Better Late Than Early" advocates a late start in formal schooling, keeping children at home until the age of eight or ten. Estell Rubin discusses her book, "The Divorced Father", and Brian Sutton Smith talks about education and the family of the future. (Author/BF)

-10-
AN - ED151080
TI - Parenting Center Model. Work Unit I. Final Report
SO - (1977); 4pp
- RIE78JUL
AV - EDRS Price MF-$0.83 HC-$18.07 Plus Postage.(329 MF).
AB - This is the annual report (1966-67) of the Parenting Materials Information Center (PMIC), a project of the Southwest Educational Development Laboratory designed to collect parenting materials, generate useful information about them, and store that information in a replicable, self-contained information system that would make the information available for easy retrieval. Goals identified for the year included continuing the growth and development of the data base created over the previous three years, expanding the scope of analysis of materials to incorporate information about ethnic and sex role characteristics and exploring strategies for disseminating and replicating information already collected and products already developed. Described in this report are procedures for the maintenance and updating of the PMIC Collection, the development of ethnic and sex role coding guidelines, dissemination activities, activities concerned with program replication, and implications and recommendations for the future. Approximately 150 pages of appendices include program materials. (SB)

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SEX DIFFERENCES IN ACHIEVEMENT AND MOTIVATION

SEX DIFFERENCES IN ACHIEVEMENT AND MOTIVATION

-1-
AN - ED115625
TI - Attributions of Success and Failure for Males and Females as Actors and Observers
AU - Bar-Tal, Daniel; Frieze, Irene Hanson
SO - (1975); 22pp
- RIE76APR
AV - EDRS Price MF-$0.83 HC-$1.67 Plus Postage.(1 MF).
AB - This study compares the differences in causal attributions of a person experiencing success or failure in an achievement situation (the actor) and someone who read about the situation (the observer). The subjects were given sets of anagrams which varied in difficulty. The results of both studies showed that actors were relatively more likely to perceive their outcomes as caused by external factors (task difficulty and luck), while observers attributed these outcomes more to internal factors (effort). Attributions for both actors and observers were also strongly affected by whether the outcome was a success or a failure. Hypotheses concerning significant differences in attributions made by male and female observers or actors were only weakly supported; however, the data that did emerge suggested a general tendency toward stereotypic thinking by both sexes, but especially by male observers. It has been suggested that the differential attributions made by an actor and an observer may cause conflicts in educational settings, where the student is the actor and the teacher the observer. However, this present study explores a situation that differs from a classroom situation, and additional research is needed to investigate differential attributions of teachers and pupils. (BD)

-2-
AN - ED118518
TI - Achievement Motivation and Gender as Determinants of Attributions for Success and Failure
AU - Bar-Tal, Daniel; Frieze, Irene Hanson
SO - (1975); 32pp
- RIE76JUN
AV - EDRS Price MF-$0.83 HC-$2.06 Plus Postage.(1 MF).
AB - Research designed to analyze the effect of achievement motivation and gender as determinants of attributions for success and failure is described. One-hundred and twenty male and female subjects, divided according to levels of achievement motivation, were asked to do an anagram task at which they were made to succeed or fail. Ratings of ability, effort, task difficulty, and luck, as possible causes for success or failure, indicated that those with high achievement motivation of both sexes made relatively higher ratings for ability and lower ratings for task difficulty. Females tended to employ higher ratings for luck, and females with high achievement motivation made more use of effort as a causal factor than men. High achievement motivation males had a very high estimate of their own abilities. The male and female low achievement-motivated groups tended to be similar,

although the women tended to make more use of task difficulty in explaining failure and had somewhat higher rating of their abilities. The low achievement-motivated males saw ability as the primary determinant of outcome. (Author/DE)

-3-
AN - ED151620
TI - Vicarious Achievement Orientation
AU - Leavitt, Harold J.; And Others
SO - Aug 1977; 1pp
- RIE78AUG
AV - EDRS Price MF-$0.83 HC-$2.06 Plus Postage.(40 MF).
AB - This study tests hypotheses about achievement orientation, particularly vicarious achievement. Undergraduate students (N=437) completed multiple-choice questionnaires, indicating likely responses of one person to the success of another. The sex of succeeder and observer, closeness of relationship, and setting (medical school or graduate school of education) were varied. It was found that more vicarious achievement responses were generated by close relationships. Male and female subjects selected vicarious responses with the same frequency, but both ascribed more vicariousness to females. Competitive responses were more frequent in the medical school setting than in the education school. (Author)

SEX EQUITY IN ELEMENTARY AND SECONDARY SCHOOL PRACTICES

Reading and Linguistics

Activities in Classrooms and Schools

Athletics

-1-
AN - ED109610
TI - Effect of Interest in Material on Sex Differences in Reading Comprehension. Final Report
AU - Asher, Steven R.
SO - Jun 1975; 49pp
- RIE75DEC
AV - EDRS Price MF-$0.83 HC-$2.06 Plus Postage.(1 MF).
AB - Recent research indicates that boys read as well as girls if given high-interest material but read more poorly if given low-interest material. This study investigated possible factors contributing to the facilitating effect of interest of boys. Two experiments were performed to learn whether high-interest topics are associated with traditionally masculine themes for boys and feminine themes for girls. Another experiment examined whether the effect of interest could be due to greater familiarity with vocabulary on high-interest material. Finally, the long-term instructional benefits of a high-interest reading program were investigated. Results of the first two experiments indicated that boys' interests in topics were strongly correlated with independent ratings of masculinity, while girls' interests were only moderately correlated with femininity. Furthermore, sex-typing accounted for much of the stability of boys' interests across grade level and none of the stability of girls' interests. The third experiment tended to suggest that interest level had no facilitating effect when vocabulary content was controlled across interest level. The data suggest potential benefits of high-interest classroom instruction. (Author/TS)

-2-
AN - ED146567
TI - Sex Differences in Reading Achievement. Reading Education Report No. 2
AU - Asher, Steven R.
SO - Oct 1977; 1pp
- RIE78APR
AV - EDRS Price MF-$0.83 HC-$2.06 Plus Postage.(30 MF).
AB - After reviewing the evidence that boys in American elementary schools are far more likely than girls to have serious reading problems, this report considers two lines of investigation into this discrepancy. The first line of investigation is based on the hypothesis that the predominance of female teachers in elementary schools is responsible for boys' poorer reading performances; the second is based on the hypothesis that the material children read in school is unappealing and that boys would read as well as girls if they were given more interesting material. The author concludes that, despite the plausibility of the hypothesis that boys might benefit from having male teachers, this assumption is not supported by the data. The research on high-interest reading materials, however, suggests that the content of what students read may have an impact on boys' reading performance. (AA)

READING AND LINGUISTICS

-3-
AN - ED152098
TI - The Paralinguistic Encoding Capability of Children. Report from the Project on Studies of Instructional Programming for the Individual Student. Technical Report No. 441
AU - Plazewski, Joseph G.; Allen, Vernon L.
SO - Dec 1977; 1pp
- RIE78AUG
AV - EDRS Price MF-$0.83 HC-$3.50 Plus Postage.(75 MF).
AB - A study was conducted of the capacity of sixth-grade children to communicate accurately paralinguistic affect. A dependent measure indicating the accuracy of paralinguistic communication of affect was obtained by comparing the level of affect which children intended to encode with ratings of vocal inflections from adult judges. Four independent variables were manipulated: (1) the sex of the child doing the encoding (male/female), (2) the literal content of the child's verbal message (positive/negative), (3) the encoder's intended level of vocal intonation (extremely unfriendly, moderately unfriendly, neutral, moderately friendly, and extremely friendly), and (4) the sex of the adult decoder who provided ratings of vocal affect conveyed (male/female). Four hypotheses were tested. The hypothesis that paralinguistic encoding should be more accurate when literal content and intended affect are consistent, rather than inconsistent, was partially confirmed. The hypothesis that negative paralinguistic inconsistency should be more accurately encoded than positive paralinguistic inconsistency was also partially confirmed. Contrary to prediction, male children were more accurate encoders than female children. Finally, as predicted, adult females were more accurate decoders than adult males. Findings are discussed in light of the role of physiological arousal in affecting motor performance according to learning theory. (Author)

ACTIVITIES IN CLASSROOMS AND SCHOOLS

-1-
AN - ED147260
TI - Sex and Grade Level of Student as Context Variables in Elementary School Teaching. Report No. 76-12
AU - Baum, Michael; And Others
SO - Dec 1976; 1pp
- RIE78APR
AV - EDRS Price MF-$0.83 HC-$2.06 Plus Postage.(35 MF).
AB - Low-inference classroom observational data were collected on 362 children in four elementary schools (grades two to five) who had been consistently ranked by two successive teachers over a two-year period. Teachers ranked students on one or more of thirteen bipolar scales assessing personality characteristics and teacher expectations. Two-way analyses of variance were employed using grade and sex as classifying variables. Results indicated that although teachers generally responded similarly to both sexes, subtle differences emerged in terms of differential patterns of teacher-student interaction, especially in response opportunity styles, private work contracts, differential acceptance of child-initiated, nonacademic requests, and both the teachers' and the students' affective responses to the dyadic interactions. Differences among grades indicated a shift from a private to a public focus, with more interactions being work centered. These differences were discussed in terms of maturation and increased socialization of the students to teacher expectations. (Author)

-2-
AN - ED150159
TI - The Texas Teacher Effectiveness Study: Student Sex, Grade, and Socioeconomic Status Differences in Classroom Process Measures
AU - Brophy, Jere E.; And Others
SO - (1975); 2pp
- RIE78JUN
AV - EDRS Price MF-$0.83 Plus Postage. HC Not Available from EDRS.(99 MF).
AB - Twenty-eight second and third grade classrooms in Austin, Texas were observed for approximately thirty hours each, using an elaboration of the Brophy-Good Dyadic Interaction Observation System. These process data were then analyzed for differences according to grade, student sex, and student socioeconomic status (SES). Grade and sex differences were below chance levels in frequency and were generally as would be expected in direction. However, SES differences were widespread, indicating that teachers working at the same grade level may be faced with very different opportunities and demands. High SES classrooms featured eager and competitive students and businesslike teachers who focused on the curriculum. In contrast, low SES classrooms featured students who were fearful, anxious, and generally alienated from the student role. Their teachers attempted to combat student fears with patience and determination, and showed a greater willingness to deviate from the curriculum and to

attend to matters of personal concern or interest; they generally exhibited a more personalized approach. These process differences in teacher behavior appeared to be appropriate responses to the particular demands placed upon the teachers. (Author/MV)

-3-
AN - ED146141
TI - Sex and Grade Level Differences in Ratings of Students by Teachers and Classroom Observers. Report No. 75-20
AU - Coulter, Cynthia L.; And Others
SO - (1975); 1pp
- RIE78MAR
AV - EDRS Price MF-$0.83 HC-$2.06 Plus Postage.(36 MF).
AB - Elementary school students were ranked by teachers on scales measuring personality characteristics and teacher expectations. Classroom observers also rated the students to assess the validity of teacher rankings and to determine whether teachers and observers use the same characteristics in forming perceptions of students. Teacher rankings and observer ratings were analyzed for sex and grade level differences, and the results were compared. Though some halo effect was evident in teacher rankings, both teachers and observers agreed in perceiving girls more favorably than boys, indicating that real student sex differences are reflected rather than teacher bias. Grade level main effects in observer ratings reflect maturational differences between grades. Grade by sex interactions, reflecting developmental differences between males and females, appeared for some rating scales. (Author/MJB)

-4-
AN - ED111495
TI - Sex Differences in the Meaning of Negative Evaluation in Achievement Situations: Determinants and Consequences
AU - Dweck, Carol S.
SO - Apr 1975
- RIE76JAN
AV - EDRS Price MF-$0.76 HC-$1.58 Plus Postage
AB - Sex differences in children's reactions to failure feedback in school situations were investigated by assessing the ways in which teachers use negative evaluation in the classroom. Three aspects of teachers' evaluative feedback were studied: (1) ratio of negative to positive feedback; (2) contingency vs. noncontingency of feedback; and (3) (the major aspect) the particular aspects of performance upon which negative evaluation was contingent. In 5 fourth and fifth grade classrooms, every contingent evaluative statement made by the teacher was classified according to the class of behaviors upon which it was contingent (conduct, intellectual quality of academic performance, or intellectually irrelevant aspects of academic performance). Feedback was also classified according to the reason for failure (lack of motivation, lack of ability, or other

external factors). Boys and girls received virtually the same proportions of positive and negative evaluation for the intellectual quality of their work. However, there were striking sex differences in the contexts in which negative evaluations were given. Implications of these results were discussed in terms of teachers' evaluations of their students, differences in teachers' attitudes towards boys and girls, and sex differences in children's own achievement expectations and ability assessments. Some suggestions for consistent uses of negative evaluation in the classroom are included. (Author/ED)

-5-
AN - ED150160
TI - Relationships of Grade, Sex, and Teacher Rankings to Coder Ratings on a Checklist of Student Behaviors
AU - Evertson, Carolyn M.; And Others
SO - (1975); 1pp
- RIE78JUN
AV - EDRS Price MF-$0.83 Plus Postage. HC Not Available from EDRS.(56 MF).
AB - Findings from the Student Attribute Study, a two-year investigation designed to identify student characteristics and behaviors related to teacher expectations and attitudes are reported. Children in grades two through five who received consistent teacher rankings over a two-year period on one or more of 13 bi-polar scales describing student characteristics were identified. At the end of the second year, classroom observers completed a behavior check list on the target students they observed. Check list items were analyzed by grade and sex as well as for high, medium, or low teacher rankings on the 13 scales. The results revealed more overt classroom misbehavior attributed to boys than girls. Although few interpretable grade effects appeared, they generally supported the idea that sassing and other negative behaviors decrease with age. In general, the check list data support other data from the study showing that students ranked high on teacher concern but low on the other 12 scales were described more negatively by coders than students ranked favorably by the teachers. Although there were obvious halo effects in the teacher rankings, the rankings were generally accurate. (Author/MV)

-6-
AN - ED126583
TI - Diagnosing Sex-Role Stereotyping in SEA
AU - Gray-Feiss, Katherine
SO - (1976); 42pp
- RIE76DEC
AV - EDRS Price MF-$0.83 HC-$2.06 Plus Postage.(1 MF).
AB - In response to a request from the Southeast Council, the Southeast Alternatives (SEA) Internal Evaluation Team undertook a study to provide information about sex-role stereotyping in

Southeast Alternatives schools. The questionnaire had ten questions that asked such things as if stereotyping occurred, where it occurred, what would be the best means of handling it, how important was the issue, what were the most important influences of stereotyping, and what school activities should be divided according to sex. The report is in three sections. Section 1 reports the results; section 2 analyzes the instrument; and section 3 presents an analysis of the data. The results indicate that the great majority of the staff of the SEA do not think that the school has as much influence over the development of children's sex-role identity as the home. The most likely place to find sex-role stereotyping in the schools is in instructional materials. Workshops and the purchase of new materials headed the list of ways for dealing with sex-role stereotyping. With the exception of two areas--physical activities and sexual matters--the staffs clearly believed that classes and activities should not be divided according to sex. (Author/IRT)

-7-
AN - ED100491
TI - Sex Role and Pupil Role in Early Childhood Education
AU - Lee, Patrick C.; Kedar, Gita
SO - 1974; 25pp
- RIE75MAY
AV - EDRS Price MF-$0.83 HC-$1.67 Plus Postage.(1 MF).
AB - This article analyzes the interaction between sex role and "pupil role" in the early childhood education setting. It postulates that teachers and schools have a demonstrated investment in socializing children to a passive, docile, and dependent role, beginning at the preschool level. This role, called "pupil role," corresponds closely to the traditional female sex role and is incongruent with the standard male sex role. Thus, boys experience conflict and stress in school while girls accommodate to the passive learning style associated with pupil role. The long-range implications of these differential interactions are discussed along with suggestions from research and theory about the benefits of active over passive learning strategies. Finally, recommendations are offered for teacher training and school reform. (Author/ED)

-8-
AN - ED114754
TI - Rationale and Design for Reducing Sex Differences in Occupational and Educational Attainment by Strengthening Across-Sex Peer Influences. Report No. 196
AU - Michaels, James W.; McCulloch, Donna H.
SO - May 1975; 35pp
- RIE76APR
AV - EDRS Price MF-$0.83 HC-$2.06 Plus Postage.(1 MF).
AB - Major sex differences in occupational and educational attainment

are summarized and a rationale and supporting evidence presented for reducing such sex differences by strengthening across-sex task interaction and reward interdependence in school classrooms, thus strengthening across-sex peer influence. An experimental design is suggested, though not implemented, which would analytically separate the effects of cooperative and competitive task interaction from those of positive and negative reward interdependence. Thus, it is hypothesized that both task interaction and reward interdependence would contribute to strengthening across-sex task-related interaction outside of the formal task-reward setting. Appendix A includes student self-report measures of the dependent variables of interest, and Appendix B discusses several problems encountered in reviewing the literature on sex differences and sex discrimination. (Author)

-9-
AN - ED139871
TI - Peer Interaction Patterns in an Integrated Middle School
AU - Schofield, Janet W.; Sagar, H. Andrew
SO - 1977; 1pp
- RIE77OCT
AV - EDRS Price MF-$0.83 HC-$2.06 Plus Postage.(32 MF). Dr. Janet Schofield, University of Pittsburgh, Department of Psychology -Room 405 Langley Hall, Pittsburgh, Pa. 15260
AB - This research investigated the development of interracial interaction patterns among peers in a new open enrollment desegregated middle school. The student interaction analysis conducted for the study attempted to answer the following questions: Is race a significant determinant of the amount of student interaction? Does grade level or sex influence the amount of interracial interaction which occurs? How does sex compare to race as a grouping criterion within the three grade levels studied? Finally, does the amount of interaction between black and white students increase over time? Seating patterns in the cafeteria were observed during the school's first year of operation. Analysis of these patterns for racial aggregation suggested that race was an important grouping criterion for students who have chosen a desegregated school. In the sixth and seventh grades, sex was more important than grouping. Girls showed more racial aggregation than boys. Racial aggregation decreased over time in the sixth and seventh grades but increased in the eighth where there was a predominately white accelerated academic track and a predominately black regular track. (Author/JP)

ACTIVITIES IN CLASSROOMS AND SCHOOLS

-10-
AN - ED147432
TI - Interracial Behavior in a "Magnet" School
AU - Schofield, Janet W.; Sagar, H. Andrew
SO - (1977); 1pp
- RIE78APR
AV - EDRS Price MF-$0.83 HC-$1.67 Plus Postage.(24 MF).
AB - This study replicates and extends an earlier study of interracial interaction patterns in an open enrollment "magnet" school. The earlier study conducted during the school's first year of operation found that: (1) race is an extremely important grouping criterion even for students who have chosen a segregated school, (2) sex is an even more important grouping criterion, (3) girls show more racial aggregation than boys, and (4) racial aggregation decreased over time in the 7th grade which met most of the conditions specified by Allport as conducive to improved intergroup relations, but increased in the 8th grade which had a predominantly white accelerated academic track and a predominantly black regular track. The present study found that all of the above patterns held true in the school's second year of operation with one exception: No increase in interracial interaction was found in the 7th grade. Cross-sectional comparison of the interaction patterns of this year's 7th and 8th graders who entered these grades with one year of positive desegregated experience to those of last year's 7th and 8th graders who had no parallel experience showed (1) as predicted, this year's 8th graders interact interracially more than last years's, and (2) the predicted parallel difference between this year's 7th graders and last year's was not found. The study's findings point up the crucial importance of attending to contact processes beyond the first year of desegregation. (Author/AM)

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ATHLETICS

-1-
AN - ED130991
TI - Women's Athletics: Bibliographies on Educational Topics, No. 2
SO - Jul 1976; 43pp
- RIE77MAR
AV - EDRS Price MF-$0.83 HC-$2.06 Plus Postage.(1 MF). ERIC Clearinghouse on Teacher Education, One Dupont Circle, N.W., Suite 616, Washington, D.C. 20036 (1-9 copies, $1.00 ea.; 10-99 copies, $0.90 ea.; 100-999 copies, $0.80 ea.; 1000 or more copies, $0.70 ea.)
AB - This annotated bibliography on women's athletics was compiled from the ERIC data base for documents and journal articles. It cites document accession number, pagination, availability in microfiche and/or hard cover, availability source and address. The bibliography presents material on women's athletics and (1) general sex discrimination (14 citations); (2) sex discrimination, litigation, and legislation (10 citations); (3) professional associations (9 citations); (4) physical characteristics and performance skills (13 citations); (5) psychology and sociology (15 citations); (6) programs and guides (18 citations); and (7) other related women's athletics topics (11 citations). An order form for documents available through the ERIC Document Reproduction Service is included. (MB)

-2-
AN - ED148774
TI - Physical Education, Part I. Options in Education, Program No. 99
SO - 21 Nov 1977; 1pp
- RIE78MAY
AV - EDRS Price MF-$0.83 HC-$1.67 Plus Postage.(22 MF).
AB - This transcript of a National Public Radio broadcast discusses the impact of Title IX on elementary and secondary physical education. Topics covered include competition, difficulties involved in the sex integration of sports, statements on Title IX by five chief state school officers, the experience of Massachusetts in implementing Title IX, and the problem of locker room facilities. (MJB)

TESTING

-1-
AN - ED151415
TI - Performance Consequences of Sex Bias in the Content of Major Achievement Batteries. Final Report
AU - Donlon, Thomas F.; And Others
SO - Jul 1977; 2pp
- RIE78JUL
AV - EDRS Price MF-$0.83 HC-$7.35 Plus Postage.(149 MF).
AB - The content of selected major achievement tests is examined for bias in the frequency of references to the male and the female sex. The performance of males and females is contrasted on each item considered, and the relationships between item content and the performance differences is surveyed. The tests used in this study include the Metropolitan Achievement Test, the Iowa Tests of Basic Skills, the California Achievement Tests, and the Sequential Test of Educational Progress. Grades 2, 5, 8, and 10 are analyzed. Major findings include: (1) females perform better on items containing female references; (2) both males and females perform less well on items with a greater number of references; (3) consistent patterns occur regardless of whether the content variable studies is the total number of references or the total number of factors; (4) items with more than the average number of references do not differentiate ability levels within sex groups as sharply as do other items; and (5) both sexes are similar on such noncontent factors as omitting or rate-of-work. A Manual for Identifying Sex Bias Explicit in the Content of Test Items is appended. (Author/MV)

-2-
AN - ED099431
TI - Bias in Testing: A Review and Discussion. TM Report No. 36
AU - Flaugher, Ronald L.
SO - Dec 1974; 10pp
- RIE75AUG
AV - EDRS Price MF-$0.83 HC-$1.67 Plus Postage.(1 MF).
AB - Recent empirical evidence concerning sex and racial bias in testing is discussed in terms of three primary sources of bias: (1) content of the test itself, (2) atmosphere in which the test is administered, and (3) the use to which the test results are put. Test content that is demonstrably more difficult for one group than another should be (1) eliminated in any setting in which equal difficulty is assumed or (2) perhaps more important, the biased content should be examined closely for possible causes of the difference, leading to modification of educational practices for the low-scoring groups. Special care should be taken routinely to see that minority groups are made to feel comfortable and are not intimidated by their surroundings. Pertaining to fairness in test use, methodological developments undermining the traditional statistical model of fairness previously accepted without question are described in some detail. The "new measures" approach to test bias is seen as essentially an abandonment of, or a reduced emphasis on, the traditional measures of status of aptitude and achievement. (Author/RC)

SEX EQUITY FOR GROUPS WITH SPECIAL NEEDS

Minority Women

Black Women

Mexican American Women

Indian Women

MINORITY WOMEN

-1-
AN - ED142509
TI - Multicultural Education: Teaching About Minority Women. Special Current Issues Publication No. 8
AU - Baker, Gwendolyn C.; And Others
SO - Aug 1977; 1pp
- RIE77DEC
AV - EDRS Price MF-$0.83 HC-$2.06 Plus Postage.(33 MF). ERIC Clearinghouse on Teacher Education, 1 Dupont Circle, N.W., Room 616, Washington, D.C. 20036 ($1.00)
AB - In this monograph the responsibilities of teacher education programs in dealing with the problems of sexism and racism are discussed. In a collection of articles the following topics are covered: (1) minority women and the women's movement; (2) American Indian women; (3) understanding the Chicana (Mexican Americans); (4) black women, their problems and strengths; (5) Japanese American women and their perspective on liberation; and (6) new directions for ensuring equality for minority women. (JD)

-2-
AN - ED159302
TI - Feasibility of an Internship Program for Women and Minorities in Educational Research
AU - Jackson, Dorothy J.
SO - (10 Mar 1978); 1pp
- RIE79JAN
AV - EDRS Price MF-$0.83 HC-$1.67 Plus Postage.(17 MF).
AB - Women and minority group junior faculty are underrepresented in academia and in the field of educational research. They carry heavier teaching loads than their white male counterparts, suffer from social and cultural discrimination, and are excluded from mentor relationships and the "old boy network." In an attempt to rectify this situation, the Higher Education Resource Services (HERS) conducted a study, funded by the National Institute of Education, to assess the feasibility of operating a one year mid-career internship as a strategy to increase the number of minorities and women in educational research. The proposed internship would emphasize participation on research projects with outstanding senior researchers, collaboration on presentations and publications, on-site and external research training, and professional and peer networking. In order to meet these objectives, the HERS study will continue to survey junior faculty in the science and education departments of four year Mid-Atlantic colleges. The results of this survey, recommendations made by chairpersons and special interest caucus representatives, experiences of administrators working in internship programs, and data collected from a working conference on research will be used to design a model program. Preliminary results indicate that training should concentrate on grantspersonship, policy research, evaluation, statistics and computer usage. (Author/EB)

-3-
AN - ED121499
TI - Ethnic Group Identity and Occupational Status Projections of Teenage Boys and Girls: Mexican American, Black, Native American, and Anglo Youth
AU - Kuvlesky, William P.; And Others
SO - Apr 1976; 64pp
- RIE76AUG
AV - EDRS Price MF-$0.83 HC-$3.50 Plus Postage.(1 MF).
AB - Research objectives were to determine the extent to which ethnic variability existed in reference to male and female: occupational aspirations (type, level, and intensity); occupational expectations (type, level, and certainty); and anticipatory goal deflection. Data were derived from surveys of the following rural youth (high school sophomores) samples: (1) 170 male and 215 female Arizona Navajos (1972); (2) 98 male and 94 female East Texas blacks (1972); (3) 148 male and 158 female East Texas Anglos (1972); (4) 178 male and 201 female South Texas Mexican Americans (1973); (5) 15 male and 15 female South Texas Anglos (1973); Chi-square tests were used in each case to determine whether or not any ethnic differences observed were statistically significant. Significant results were: (1) Navajo youth had the lowest level of aspirations and the weakest intensity of desire; (2) Mexican Americans had the highest and strongest intensity of aspiration; (3) Mexican American females had the highest level of aspiration; (4) Mexican Americans had the highest level of status expectations, and Navajos had the lowest level; (5) Anglo expectations paralleled those of the Navajos, and Anglo females had the lowest expectation level; (6) Navajos and Anglos were markedly more certain about occupational expectations than black who were relatively uncertain. (JC)

BLACK WOMEN

-1-
AN - ED131917
TI - Black Girls at Play: Folkloric Perspectives on Child Development
AU - Bauman, Richard, Ed.
SO - (1975); 101pp
- RIE77APR
AV - Document Not Available from EDRS. Information Division, Southwest Educational Development Laboratory, 211 East 7th Street, Austin, Texas 78701 ($3.50, must be paid in advance by check or money order)
AB - This document brings together two preliminary reports on field research undertaken as part of the Children's Folklore Program of the Southwest Educational Development Laboratory. This research is an inquiry into the nature and function of the traditional, expressive activities of Black, Mexican-American and Anglo children, of both sexes, between the ages of five and nine years. The principal goal of the research is to delineate developmental trends in children's folklore, with particular reference to similarities and differences in repertoire, acquisition, use, and function, across sex and ethnic lines. The two papers presented here are concerned with the folklore of Black girls. The first study explores the culture-specific functions and implications for socialization of a range of folklore and other play forms characteristic of Black girls from five to nine. The second paper examines the proxemic structure of a series of handclaps, ring plays and line plans, and demonstrates the implications of increasing proxemic complexity upon the sequence in which the forms are acquired in the course of development, and the sequence in which they are played on specific occasions. (Author/MS)

-2-
AN - ED148946
TI - Reference Groups for Female Attractiveness Among Black and White College Females
AU - Harrison, Algea O.; Stoner, David M.
SO - 30 Mar 1977; 13pp
- RIE78MAY
AV - Document Not Available from EDRS.
AB - This study is concerned with the comparative reference group used by black and white women when evaluating female attractiveness. The study's examination of this issue is part of a larger report on the relationship between self-concept, attractiveness and reference group for black and white women. The study used the technique proposed by McGuire and Padawer-Singer to measure self-concept by analyzing the spontaneous response of the subject to the question "Tell us about yourself?". This technique is also used to elicit information about attractiveness from black and white women. Specific issues examined were: (1) whether black and white females use different attributes in describing attractiveness, (2) whether there is a difference in the physical features used to describe a physically attractive female, and (3) whether the responses varied as a function of the racial make-up

of the social milieu and/or the race of the experimenter. The subjects were 40 black and 40 white female students on a college campus with 17% black enrollment. Results suggest that black women are probably using other black women as a reference group when evaluating female attractiveness. The presence of whites as either subjects in the group or as the experimenter resulted in an increase in the number of physical characteristics mentioned by blacks in describing an attractive female. The presence of blacks resulted in a decrease of the use of physical characteristics on the part of white females. The findings point to the effect of the social milieu in which such data are collected. Whether black females viewed their physical features as attractive was a concern of the study. In describing a physically attractive female, very seldom did either group use racially exclusive terms. (Author/AM)

-3-
AN - ED138812
TI - Career Options for Black Women
AU - Jackson, Jacquelyne Johnson
SO - (1976); 4pp
- RIE77OCT
AV - EDRS Price MF-$0.83 HC-$19.41 Plus Postage.(372 MF).
AB - The specific problem conceptualized for this position paper was that of deriving inferences from statistical data which permitted some determination of the probable effects of recent federal policies and programs on the career options of black women, and, along with other relevant data, to develop a set of recommendations concerning the types of policies and programs which best aid black women in using and improving their career options. In addition, three issues (competent education, traditional female roles, conflicting minorities) are examined as they relate to the current efforts to aid black women. Myths and realities about occupational, familial, and educational statuses of black women are discussed in detail. Employment outlooks for 17 occupations through the mid-1980's are discussed. Career options for black women and the National Institute of Education (NIE) role are examined; recommendations are made which focus on the major concerns and strategies of the Education and Work Section of NIE as they relate to black women. It is concluded from statistical data that federal policies and programs had insignificant, weak, or moderate impacts on career options for black women. It is also noted that the survey of related data tended to confirm the general paucity of empirical data about the relationship between schooling, family, work, and income for black women, thereby leading to the overriding recommendation for a massive research undertaking of this type. Tables are included for 1974-75 predictions of training and other qualifications, and employment outlooks for selected occupations (66 pages). (TA)

-4-
AN - ED156768
TI - Conference on the Educational and Occupational Needs of Black Women, December 16-17, 1975. Compendium, Volume 1. Overview and Recommendations
SO - Apr 1978; 85pp
- RIE78NOV
AV - EDRS Price MF-$0.83 HC-$4.67 Plus Postage.(1 MF). Women's Research Program, Educational Equity Group, National Institute of Education, 1200 Nineteenth Street, N.W., Washington, D.C. 20208 (free)
AB - The conference reported on in this volume had two tasks. One was the development of a policy oriented research agenda for the National Institute of Education (NIE) focused on the educational and occupational needs of black women. The other was the development of a broader research and policy agenda focused on issues beyond the research scope of NIE that other agencies and institutions could undertake. The conference participants were divided into two groups, one composed of practitioners and policy makers and the other of researchers. A report on each group's discussions is presented. Abstracts of conference papers, which dealt with educational, occupational, family and health concerns of black women, are presented. Research and policy recommendations arising from the discussions of the papers are outlined. Appended to the volume is a list of conference participants. (GC)

-5-
AN - ED157961
TI - Conference on the Educational and Occupational Needs of Black Women, December 16-17, 1975. Compendium. Volume 2: Research Papers
SO - Apr 1978; 3pp
- RIE78DEC
AV - EDRS Price MF-$0.83 HC-$14.05 Plus Postage.(252 MF). Women's Research Program, Educational Equity Group, National Institute of Education, 1200 Nineteenth Street, N.W., Washington, D.C. 20208 (n.c.)
AB - The papers contained in this volume were presented at a conference which focused on the problems faced by black women. The papers address socioeconomic, educational, occupational, and health issues, as well as stressing the special counseling needs of this population. It should be noted that each of these papers is individually cited and abstracted in the ERIC system (see note). Also included in this volume is a statistical appendix which reflects the educational and occupational status of black women in the United States. (GC)

MEXICAN AMERICAN WOMEN

-1-
AN - ED119888
TI - Profile of the Mexican American Woman
AU - Cotera, Martha
SO - Mar 1976; 280pp
- RIE76JUL
AV - EDRS Price MF-$0.83 HC-$15.39 Plus Postage.(3 MF). National Educational Laboratory Publishers, Inc., 813 Airport Blvd., Austin, Texas 78702 (Stock No. EC-037, $8.00)
AB - The second largest group of minority women in the U.S., Mexican American women share multitudinous histories, vast differences in lifestyles, experiences and realities. A Chicana may have recently arrived from Mexico, or her ancestors may have been in the Southwest since 1520 (or before) or in the Midwest since the 1880's. She may be rural, urban, poor, middle class or Ph.D., a high school dropout, a teacher, or a migrant. She does share some basic, and heterogeneous, roots in the development of Indian and Spanish culture and history. She also shares the history of involvement and participation which has been a way of life for the Chicano community in the U.S. since 1848. Documenting the development of Mexican American women in Mexico and the U.S., this monograph discusses: the Chicana's historical legacy during Mexico's Pre-Columbian and Colonial Periods, its War for Independence, the 1910 Revolution, and during the United States Colonial Period and history between 1840 and 1960; Chicanas in the U.S. today--their education, employment status, income, health, housing, roles, and attitudes; the Chicana and her family; today's Chicana and her achievements in education, literature and journalism, political activities, and labor; Chicanas in the feminist movement; and the Chicana and the future. Appended are a 119-item bibliography, addresses for 35 Chicana organizations, and various resolutions passed between 1970 and 1975 in 10 Chicana conferences. (NQ)

-2-
AN - ED151138
TI - Chicana Studies Curriculum Guide, Grades 9-12
AU - Garcia, Odalmira L.
SO - Feb 1978; 2pp
- RIE78JUL
AV - EDRS Price MF-$0.83 HC-$8.69 Plus Postage.(157 MF). National Educational Laboratory Publishers, Inc., 813 Airport Boulevard, Austin, Texas 78702 (Stock No. EC-065, $7.00)
AB - Intended to give Chicanas a balanced perspective of themselves which will make them aware of their rich heritage and able to understand themselves and their community, the guide focuses on Chicana resource materials which provide a setting whereby Chicanas can become cognizant of past and present Chicano contributions in order to define the future roles that they will play. The guide covers Chicanas in history; education and the Chicana; the Chicana and society--movements, institutions, studies, and mass media; the Chicana in literature; folklore;

art--what the Chicano expresses through art; and Chicanas in music. Each area includes an introduction; overall objectives; a topical outline--topics covered and required and suggested readings; an outline of concepts covered--objectives, activities, materials, required and suggested readings, and expected outcome; and a listing of several enrichment activities. It is suggested that instruction include flexibility in the selection and completion of self-directed activities and alternative approaches to the subject matter. Small group processes are recommended to provide a setting for free interaction and value clarification which should stimulate exploration of and responsibility for personal role definition. (NQ)

-3-
AN - ED152474
TI - Mexican American Woman Curriculum Material: A Selected Topics Bibliography of ERIC Documents
SO - Apr 1977; 1pp
- RIE78AUG
AV - EDRS [illegible]e MF-$0.83 Plus Postage. HC Not Available from EDRS.(80 MF).
AB - The 106-item annotated bibliography provides a comprehensive guide to resource material, research findings, and developments related to Mexican American Women. The materials, published between 1960 and 1976, are drawn from the June 1967 through March 1977 issues of "Resources in Education" (RIE) and from the January 1970 through March 1977 issues of "Current Index to Journals in Education" (CIJE). Each citation is headed by an ERIC accession number. Both RIE and CIJE citations appear in numerical order according to the accession number. RIE citations contain an abstract, author(s), title, source(s), publication date, and ERIC Document Reproduction Service prices or an alternate availability. CIJE citations have brief annotations rather than the lengthier RIE abstracts. These annotations are only provided when it is thought the article cannot be adequately described by a combination of major and minor descriptors, identifiers, and by information in the title. CIJE citations include the article title, author(s), publication date, journal title, and information on the volume, number, and pages. Topics covered include learning motivation, integrated curriculum, Pre-Columbian Culture, bilingual education, cognitive development, educational needs, career education, curriculum development, English as a Second Language, job training, and cultural education. A list of the 16 ERIC clearinghouses and their respective scopes is appended. (NQ)

INDIAN WOMEN

-1-
AN - ED151122
TI - The Native American Woman: A Perspective
AU - Medicine, Bea
SO - Mar 1978; 2pp
- RIE78JUL
AV - EDRS Price MF-$0.83 HC-$6.01 Plus Postage.(122 MF). National Educational Laboratory Publishers, Inc., 813 Airport Boulevard, Austin, Texas 78702 (Stock No. EC-064; $6.00)
AB - Presenting varied perspectives describing the Native American woman, this book is divided into six chapters as follows: (1) Native Americans and Anthropology (this chapter illustrates the way in which anthropologists have helped stereotype American Indian women); (2) The Native American Woman in Ethnographic Perspective (emphasizing role variations and tribal differences, this chapter points up the importance of cultural background); (3) The Native American Woman in Historical Perspective (emphasis on the negative stereotyping of American Indians by historians, with the assertion that the historian typically stereotyped more severely than the anthropologist); (4) The Plain's Native American Woman (emphasis on Cheyenne sexual roles, sexual rites, and sexual taboos); (5) The Native American Woman in Transition (lengthy excerpts from a biographical account by Bonnin and a semi-autobiographical account by Qoyawayma, both women who have experienced change agent roles); (6) A Perspective of the Issues and Challenges Facing the Contemporary Native American Woman (low income; legal problems; sexism; the Women's Movement; questions re: marriage, identity, and inter-tribal marriage; education; and religion). (JC)

-2-
AN - ED152472
TI - Native American Women: A Selected Topics Bibliography of ERIC Documents
SO - Apr 1977; 1pp
- RIE78AUG
AV - EDRS Price MF-$0.83 HC-$2.06 Plus Postage.(42 MF).
AB - The 50-item annotated bibliography provides a comprehensive guide to resource materials, research findings, and developments related to Native American Women. The materials, published between 1968 and 1976, are drawn from issues of "Resources in Education" (RIE) and "Current Index to Journals in Education" (CIJE). Each citation is headed by an ERIC accession number. Both RIE and CIJE citations appear in numerical order according to the accession number. RIE citations contain an abstract, author(s), title, source(s), publication date, ERIC Document Reproduction Service prices or an alternate availability. CIJE citations have brief annotations rather than the lengthier RIE abstracts. These annotations are only provided when it is thought the article cannot be adequately described by a combination of major and minor descriptors, identifiers, and by information in the title. CIJE citations include the article title, author(s), publication

date, journal title, and information on the volume, number, and pages. Topics covered include role models, post secondary education, employment, counseling programs, and cultural education. A list of the 16 ERIC Clearinghouses and their respective scopes is appended. (HLY)

WOMEN EDUCATORS

WOMEN EDUCATORS

-1-
AN - EJ162655
TI - WOMEN IN COMMUNITY COLLEGES: A PROFILE
AU - BRAWER, FLORENCE
SO - COMMUNITY COLLEGE FRONTIERS; 5; 3; 19-22 (SPR 1977)
- CIJE77
AB - HIGHLIGHTS SOME OF THE MAJOR FINDINGS PERTAINING TO MALES AND FEMALES FROM A NATIONWIDE SURVEY OF 1,493 HUMANITIES INSTRUCTORS IN 156 TWO-YEAR COLLEGES AND CONCLUDES THAT THE DIFFERENCES FOUND ARE NOT ATTRIBUTABLE AS MUCH TO SEX AS TO INDIVIDUAL DIFFERENCES AMONG PEOPLE IN GENERAL. (JG)

-2-
AN - ED102640
TI - Women and Minorities in Administration. NAESP School Leadership Digest Series Number 11. ERIC/CEM Research Analysis Series, Number 13
AU - Coursen, David
SO - (1975); 32pp
- RIE75JUL
AV - EDRS Price MF-$0.83 HC-$2.06 Plus Postage.(1 MF). National Association of Elementary School Principals, 1801 North Moore Street, Arlington, Virginia 22209 ($2.50, single copy; $24.00 plus postage, series of 13)
AB - Literature on the role of women and minorities in school administration indicates that they both suffer from role stereotypes, although the stereotypes are somewhat different. Current literature on minority groups is limited almost entirely to discussion of blacks; the status of other racial minorities has been largely ignored. The role of blacks in administration has been severely limited by practices that exclude blacks from positions that involve supervision of white teachers or students. Women have been constrained by the belief that executive responsibilities conflict with the primary goal and responsibility of all women, which is to bear and raise children. Correcting the current situation will require the public schools to make an institutional commitment to the implementation of new hiring practices. Discrimination against minorities and women in school administration will cease only when sex and race are irrelevant in hiring and promotion. (Author/JG)

-3-
AN - ED154516
TI - The Documentation and Evaluation of a Social Change Project: Sex Equity in Educational Leadership
AU - Kempner, Ken; And Others
SO - (1978); 1pp
- RIE78OCT
AV - EDRS Price MF-$0.83 HC-$2.06 Plus Postage.(28 MF).
AB - The Sex Equity in Educational Leadership (SEEL) project, funded

by the Women's Educational Equity Act (WEEA) of the Office of Education, exists to develop and test strategies for correcting women's absence from administrative positions in Oregon's public schools. The strategies are intended to be usable by other state systems of education. Three characteristics of evaluating social action projects have guided the development of the evaluation methodology. The purpose of evaluation is to make judgments about the role of a program, product, or process. Second, the purpose of evaluation is to provide others with information to make decisions about what to do or not to do. The third characteristic is the combination of looking at the inward processes of a project and assessing the outward impact of a project. The description of inward processes is referred to as documentation and the assessment of the outward impact as evaluation. The report describes the SEEL project and the combination of documentation and evaluation being used. Then each method is described in detail and it is suggested that WEEA encourage common and systematic procedures for documenting and evaluating large-scale social action projects. (Author/MLF)

-4-
AN - ED150531
TI - Assertiveness Training
AU - Mamarchev, Helen L.; Jensen, Marian P.
SO - (1977); 1pp
- RIE78JUL
AV - EDRS Price MF-$0.83 Plus Postage. HC Not Available from EDRS.(83 MF). ERIC/CAPS, 2108 School of Education Building, The University of Michigan, Ann Arbor, 48109 ($5.00)
AB - This monograph presents a selective review of references about assertiveness training. The principles of assertiveness training are detailed with examples throughout. Applications for the use of assertiveness training in three areas are discussed: (1) as a self-help strategy, (2) as a tool for the counselor's use with clients, and (3) as tactics for those interested in becoming group facilitators. An annotated bibliography of 39 carefully selected references is also included. To aid the reader in selecting relevant material, an Assertiveness Resources Chart (ARC) cross references the population and content focus of each resource. (Author)

-5-
AN - ED150480
TI - A Program for Optimizing Women's Leadership Skills (OWLS)
AU - Sandmeyer, Louise; And Others
SO - (1977); 1pp
- RIE78JUL
AV - EDRS Price MF-$0.83 Plus Postage. HC Not Available from EDRS.(93 MF). NAWDAC, Publications, 1028 Connecticut Avenue, N.W., Suite 922, Washington, D.C., 20036 ($5.50 each)
AB - This program provides counselors with a means for integrating the

individual, with the organizational, aspects of leadership training. In addition to an extensive, annotated bibliography, this monograph consists of seven sections: (1) an historical perspective of women in leadership roles; (2) a review of the literature concerning women and leadership; (3) an overview of current leadership programs and their limitations; (4) a rationale for the Optimizing Women's Leadership Skills (OWLS) program; (5) an exposition of the OWLS program consisting of four units: an organizational assessment, an individual assessment, skill building modules, and structured experiences; (6) a suggested method for implementing the program; (7) recommendations for adapting OWLS to varying settings and clientele. (PFS)

-8-
AN - ED133917
TI - Sex Discrimination in the Selection of School District Administrators: What Can Be Done? NIE Papers in Education and Work: Number Three
AU - Timpano, Doris M.; Knight, Louise W.
SO - Dec 1976; 74pp
- RIE77JUN
AV - EDRS Price MF-$0.83 HC-$3.50 Plus Postage.(1 MF). Education and Work Group, National Institute of Education, U.S. Department of Health, Education and Welfare, Washington, D.C 20208 (Single copy free)
AB - A grass-roots organization, Career Women in Education (CWE)) formed to increase the proportion of women administrators on Long Island. This booklet is about CWE-particularly how it organized to help women educators overcome discrimination--but it is also designed to be a how-to manual. Ideas are presented for starting a job-locating network, a talent bank, district fact folders, and workshops to help members prepare for applying for jobs; and for developing public relations and keeping in contact with local administrators. Other topics concern what administrators involved in hiring can do, what the law can do, and how women administrators can organize their own grass-roots organization. Useful devices are suggested that organizations can adopt to increase the opportunities for women in education. Appendixes identify documented practices of school districts that prevent women from securing administrative positions. Other items in the appendixes are a list of studies and reports prepared by CWE, a financial report of CWE, statewide and local plans of action, and useful models for communicating with school districts. (MLF)

WOMEN EDUCATORS

-7-
AN - ED132895
TI - The Educational Backgrounds of State Executives: A Study of Postsecondary Educational Patterns of State Elites. Report and Recommendations
SO - (1976); 100pp
- RIE77MAY
AV - EDRS Price MF-$0.83 HC-$4.67 Plus Postage.(2 MF).
AB - The relationship between educational background and mobility into the executive ranks of state government was examined in a questionnaire survey of 839 state executives at the assistant division chief level and above. This study is part of a large study of the background characteristics of executives from South Carolina, Mississippi, North Carolina, Virginia, Alabama, Kentucky, and Tennessee. The major conclusions are: (1) Over half of the executives had graduate level education, and 48 percent had graduate level degrees, a finding that indicates the declining value of a bachelor's degree. (2) Three primary areas at the undergraduate level allow maximum executive mobility--the physical and biological sciences, business, finance and economics, and engineering--and these are areas in which women and minorities are less likely to major. (3) A select few colleges and universities in the region provide the greatest opportunity for mobility, especially in terms of graduate degree program offerings. (4) The educational system poses barriers for the mobility of women into the executive ranks of government that few policy-makers have adequately analyzed. Recommendations are made for expanding opportunities. (LSH)

-8-
AN - ED141954
TI - Retrenchment in Education: The Outlook for Women and Minorities. Report No. F76-9
SO - May 1977; 1pp
- RIE77DEC
AV - EDRS Price MF-$0.83 HC-$2.06 Plus Postage.(39 MF). Education Finance Center, Education Commission of the States, 1860 Lincoln Street, Denver, Colorado 80295
AB - This booklet summarizes the available information on the reasons for and the extent of the effects of declining enrollment and inflation-strained budgets on women and minorities in education. The combined impact of inflation and recession has led to the reassessment of priorities and the curtailment of services known in elementary and secondary education, as well as in postsecondary education, as retrenchment. Although information in some areas is incomplete, the data contained in this report indicate trends in reduction in force, the granting of tenure, unemployment, collective bargaining, and the demand for teachers, as well as employment trends among women and minorities. The authors conclude that more successful remedies to eliminate inequities affecting women and minorities must be found. (Author/DS)

WOMEN EDUCATORS

-9-
AN - ED156913
TI - Management Training Programs of Women and Minorities. Survey. Increasing Participation of Women and Minorities in Education R&D
SO - Mar 1978; 3pp
- RIE78DEC
AV - EDRS Price MF-$0.83 Plus Postage. HC Not Available from EDRS.(198 ..F).
AB - Based on the assumption that educational research and development (R&D) requires the same technical managerial skills as any other business organization, this survey examined fifty management training programs for women and/or minorities in eighteen business, academic, and industrial settings. Information gathered on courses, workshops, and seminars especially designed for women and/or minorities is compiled by institution in Appendix A. The subjects of these programs are then divided into twenty-four categories in Appendix B, and three participant levels (interested, entry-level, and established) are indicated; this format is used to highlight the areas of need as well as the available sources. It was concluded that (1) management training programs rarely address the needs of women and/or minorities; (2) courses directed toward female managers are usually aimed at entry-level positions; (3) vital topics, such as finance and budgeting, professional development, power and management, managing time, and assertiveness training, are neglected in these programs; and (4) in general, management is a new and experimental field for women and minorities. (ELG)

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WOMEN IN HIGHER AND CONTINUING EDUCATION

WOMEN IN HIGHER AND CONTINUING EDUCATION

1

-1-
AN - ED136645
TI - The Impact of Colleges and Universities on the Educational Aspirations of Women. Final Report
AU - Patterson, Michelle
SO - Dec 1976; 56pp
- RIE77AUG
AV - EDRS Price MF-$0.83 HC-$3.50 Plus Postage.(1 MF).
AB - The project was designed to examine the way in which institutions of higher education change, or fail to change, the educational aspirations of women students and to test the explanatory power of two dominant sociological reference group theories, environmental press and relative deprivation, when applied separately to male and female undergraduates. The analyses were carried out on existing longitudinal data files developed by the American Council on Education's Cooperative Institutional Research Program. The file used consisted of 1966 freshmen who were followed up as sophomores (1967) and seniors (1970). Variations in the aspirations of men and women were found after one year of college, but these differences appear to wash-out after four years in college. The significant predictors of senior year academic self-concept are the same for men and women. The three most important predictors of senior year educational aspiration are also the same. For both men and women both relative deprivation and environmental press appear to be operating in influencing senior year educational aspirations. The relative deprivation effect is a strong one but, contrary to the theory, appears to operate directly through college grades and not through the intermediate psychological variable of academic self-concept. College selectivity is shown to have a significant and positive effect on educational aspirations, although this effect is noticeably stronger for men than for women. (JMF)

-2-
AN - ED074997
TI - Women's Studies: Courses and Programs for Higher Education
AU - Robinson, Lora H.
SO - (1973); 54pp
- RIE73AUG
AV - EDRS Price MF-$0.83 HC-$3.50 Plus Postage.(1 MF). Publications Department, American Association for Higher Education, One Dupont Circle, Suite 780, Washington, D.C. 20036 ($2.00)
AB - Women's studies courses and programs are a relatively new phenomenon at higher education institutions. The author develops the view that women's courses and programs were created in response to issues raised by the Women's Liberation Movement. The central concern is that women be fairly represented in traditional disciplinary subject matter. Existing courses and programs are surveyed and conjectures are made about their future status in the college or university curricula. (Author)

WOMEN IN HIGHER AND CONTINUING EDUCATION

-3-
AN - ED076176
TI - Institutional Analysis of Sex Discrimination: A Review and Annotated Bibliography
AU - Robinson, Lora H.
SO - Jun 1973; 10pp
- RIE73SEP
AV - EDRS Price MF-$0.83 HC-$1.67 Plus Postage.(1 MF).
AB - Several conditions contribute to the need for information about women's standing in the academic community. Women's groups and individuals continue to file complaints of sex discrimination against colleges and universities with federal agencies who have enforcement responsibilities in this area. In addition, civil suits have arisen, and institutions are faced with developing affirmative action plans that include women in their focus. While some schools have already completed one or more studies of the status of women on campus, others have yet to undertake this task. This report is designed for those embarking on such studies in the near future. The bibliography was designed to facilitate information gathering and utilization in 3 ways: to aid cross comparisons between instit tions; to help locate useful analytical approaches; and to highlight the variety of concerns that have received attention. The bibliographical entries are listed alphabetically by institution and contain brief descriptions of the report content on the topic selected, the extent of coverage, and its particular contribution in relation to other sources available. (Author/HS)

-4-
AN - ED132910
TI - Keeping Up with Title IX. ERIC/Higher Education Research Currents
AU - Shulman, Carol Herrnstadt
SO - Jan 1977; 5pp
- RIE77MAY
AV - EDRS Price MF-$0.83 HC-$1.67 Plus Postage.(1 MF). American Association for Higher Education, One Dupont Circle, Suite 780, Washington, D.C. 20036 ($.40)
AB - Regulations implementing Title IX of the Education Amendments of 1972 were published in 1975 amid considerable speculation over their impact on college student affairs. More than one year later, there does not appear to be substantial understanding in the higher education community of what Title IX has meant for students and for administrators. Title IX regulations may already have had some impact on the treatment of women college students. At a minimum, it has compelled college officials to take a close and critical look at the effect of their policies and practices on students' college careers and on their postgraduate plans. At the same time, there may be other aspects of campus life where disparate treatment of men and women students continues to occur. One major issue remains unexamined: the policies and procedures the Office of Civil Rights will use to monitor and enforce Title IX. Until an implementation plan is made known, compliance will

depend on the good faith actions of college and university administrators; consequently, the full impact of Title IX cannot be known. (Author/MSE)

-5-
AN - ED107186
TI - Man and Women Graduate Students: The Question of Equal Opportunity. Final Report
AU - Solmon, Lewis C.
SO - 31 Mar 1975; 212pp
- RIE75OCT
AV - EDRS Price MF-$0.83 HC-$11.37 Plus Postage.(3 MF).
AB - This study of differential opportunities for men and women graduate students was undertaken for several reasons: (1) to help reach a consensus on a proper and operational definition of sex discrimination in graduate schools; (2) to turn the debate over sex discrimination toward efforts to document quantitatively the allegations previously substantiated by anecdotes; (3) to see whether the affirmative action legislation regarding students, which has been imposed on graduate institutions and caused great havoc in their operation, is required or justified, that is, whether it is the fault of institutions or of earlier conditioning of both sexes by society. The document begins with a review of earlier discussions of sex discrimination in graduate schools. This review is followed by attempts to document and explain differences by sex in the admissions process, time spent in graduate study, geographic and interinstitutional mobility, and financial aid practices. It is in these areas that the most explicit charges of differential treatment of the sexes have been made; these are also areas where new data can be brought to bear on the issue. Appendixes cover a survey of graduate school catalogues, doctoral-granting institutions that provide useable data on acceptable rates, and a survey of institutional studies. (Author/KE)

-6-
AN - ED153566
TI - Male and Female Graduate Students. The Question of Equal Opportunity
AU - Solmon, Lewis C.
SO - (1976); 159pp
- RIE78SEP
AV - Document Not Available from EDRS. Praeger Publishers, 111 Fourth Avenue, New York, NY 10003 ($18.50)
AB - A study of differential opportunities for men and women graduate students was undertaken during a two-year period. The analyses of the results provide some evidence that differential treatment exists, but also some data indicating that things have improved compared with conditions in earlier eras. Earlier discussions of sex discrimination are reviewed, and sex differences are documented and explained in the areas of admissions, time spent

in graduate study, geographic and interinstitutional mobility, and financial aid practices. (MSE)

-7-
AN - ED143747
TI - Race and Sex Effects on Access to College. Report No. 229
AU - Thomas, Gail E.
SO - May 1977; 1pp
- RIE78JAN
AV - EDRS Price MF-$0.83 HC-$4.67 Plus Postage.(81 MF).
AB - This study evaluates the effectiveness of an educational attainment model in predicting the likelihood of college attendance of a recent sample of black and white male and female high school seniors. These students were participants in a 1970 National Longitudinal study sponsored by the National Center for Educational Statistics. Specific variables that were measured in the study include: 1) family status origin, 2) mental ability, 3) senior class rank, 4) high school curriculum, 5) significant others influences, 6) perceived college ability, 7) educational expectations, and 8) college attendance. Three major observations were derived from the study. First, race differences were observed to be more influential than sex differences in affecting college attendance. Second, sex differences in educational attainment among blacks which have not been previously examined, were less pronounced than sex differences among whites. Third, many of the direct effects of race and sex on college attendance were found to be mediated by educational expectations, school process variables (class rank and curriculum placement) and to a lesser extent significant others' influences. This was also true of the direct effects of socioeconomic status (SES) and mental ability on college attendance operating for the race-by-sex groups examined. Black males were somewhat of an exception in that family origin maintained a model impact on their chances of college attendance but not on the influence of expectations, school process variables and significant others' influences. (Author/AM)

-8-
AN - ED142616
TI - Access to Higher Education: How Important are Race, Sex, Social Class and Academic Credentials for College Access. Report 226
AU - Thomas, Gail E.; And Others
SO - Apr 1977; 1pp
- RIE77DEC
AV - EDRS Price MF-$0.83 HC-$2.06 Plus Postage.(38 MF).
AB - This study reports findings from the National Longitudinal Survey of the high school class of 1972 concerning the influence of race, sex, social class and academic credentials on access to college. Results indicated that academic credentials were prime determinants of college access. However, the degree to which various types of credentials (mental ability, class rank,

curriculum] were assets or liabilities to students varied by race, sex and social class. For example, blacks were advantaged in terms of class rank performance and enrollment in academic programs while whites were advantaged on tests of mental ability. Females were advantaged on class rank performance while low SES students were disadvantaged in terms of mental ability tests performance and being enrolled in academic programs. As for the direct influence of ascribed factors on college attendance, the direct effects of race indicated a black advantage while the direct effects of sex varied by race. White males were more likely to attend college than white females, however, no net sex difference in college attendance existed for blacks. Lastly, the direct effect of social class on college attendance was relatively strong for all groups. (Author)

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GENERAL PUBLICATIONS ON SEX EQUITY

GENERAL PUBLICATIONS ON SEX EQUITY

-1-
AN - ED129940
TI - Equal Educational Opportunity: The State of the Law. ERIC-CUE Urban Disadvantaged Series, Number 48
AU - Glickstein, Howard A.
SO - Aug 1976; 33pp
- RIE77FEB
AV - EDRS Price MF-$0.83 HC-$2.06 Plus Postage.(1 MF). Institute for Urban and Minority Education, Box 40, Teachers College, Columbia University, New York, N.Y. 10027 ($2.50)
AB - This paper addresses the state of the law of equal educational opportunity. Among the laws, acts, and statutes addressed are the following: the Fourteenth Amendment to the U.S. Constitution, the implementation of school desegregation in the North and South, the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, the Educational Opportunities Act of 1974, State and Local Fiscal Assistance Act of 1972, the Comprehensive Health Manpower Training Act of 1971, affirmative action, and the Equal Pay Act of 1963. There are some special problems that are also discussed, such as the following: inequitable systems of school financing, Federal tax benefits and schools that discriminate, Federal remedies against private schools, and discrimination against school personnel. (Author/AM)

-2-
AN - ED087957
TI - Women and Education
AU - Kooi, Beverly Y.
SO - (1972); 27pp
- RIE74JUL
AV - EDRS Price MF-$0.83 HC-$2.06 Plus Postage.(1 MF).
AB - This paper concerns the place of women and men in education, and the education of future men and women about their places in society. It is written to help the National Institute of Education (NIE) formulate policies and Research and Development (R & D) programs to serve all who seek to enjoy both equity and individual differences. This paper calls for a reexamination of education's goals and practices concerning sex roles. It calls for NIE to institute policies that provide for employment solely on the basis of competency, and is a recommendation to the Institute rather than an official view of the Institute. Other parts of the paper sample statistics showing sex-related job inequities in education; suggest R & D programs; describe suggested changes which might help NIE reduce discrimination; and summarize the paper's recommendations and suggest what part of the proposed NIE budget and organization could accomodate them. (Author)

GENERAL PUBLICATIONS ON SEX EQUITY

-3-
AN - ED146663
TI - Implementing Title IX. ACSA School Management Digest, Series 1, Number 8. ERIC/CEM Research Analysis Series, Number 35
AU - Mazzarella, Jo Ann
SO - (1977); 1pp
- RIE78APR
AV - EDRS Price MF-$0.83 HC-$2.06 Plus Postage.(40 MF). Association of California School Administrators, P.O. Box 39186, Rincon Annex, San Francisco, California 94139 ($1.75 for ACSA members; $2.75, nonmembers)
AB - Title IX of the Education Amendments of 1972 and the HEW implementing regulations cover two major areas: sex discrimination in school courses, athletics, extracurricular activities, employment, and counseling, and sex descrimination in hiring, promotions, and benefits for school personnel. The author of this review examines the progress (and lack thereof) made by schools attempting to comply with Title IX requirements in physical education and athletic programs, employment, counseling and vocational education, and treatment of students. Combining information from the literature with material gleaned from personal interviews, the author focuses on the successful efforts of some school districts to fulfill both the letter and the spirit of Title IX. The author notes that staff, parents, and students need to be involved in implementing Title IX. A decentralized approach involving vigorous, dedicated committees, has been used by most schools that have moved the farthest toward eradicating sex discrimination, she notes. (Author/DS)

-4-
AN - ED130292
TI - Options in Education, Transcript for November 10, 1975: College Enrollment, Standardized Testing, Hyperactive School Children, Sex Discrimination in Education, Telephone Installation, and Adult Functional Competence
SO - (1975); 22pp
- RIE77MAR
AV - EDRS Price MF-$0.83 HC-$1.67 Plus Postage.(1 MF).
AB - "Options in Education" is a radio news program which focuses on issues and developments in education. This transcript of the show contains discussions of college enrollment; standardized testing; hyperactivity in school children, the drugs given to these children, and the biochemical effects of artificial flavors and colors on hyperactive children; sex discrimination in education; learning how to install a telephone (a new job for women); and adult functional competence. Participants in the program are John Merrow and Wendy Blair, moderators; Marshall Smith, National Institute of Education; Margaret Dunkle, Association of American Colleges' Project on Women; Janice Campbell, telephone installer; Peter Schrag, author of "The Myth of the Hyperactive Child"; Susan Stamberg, National Public Radio; and Ben Feingold, author of "Why Your Child Is Hyperactive." (JM)

GENERAL PUBLICATIONS ON SEX EQUITY

-5-
AN - ED130298
TI - Options in Education, Transcript for February 2, 1976: Individually Guided Education, Creative Playacting, and Women in Education
SO - (1976); 24pp
- RIE77MAR
AV - EDRS Price MF-$0.83 HC-$1.67 Plus Postage.(1 MF).
AB - "Options in Education" is a radio news program which focuses on issues and developments in education. This transcript contains discussions of Individually Guided Education, a program which was developed at the University of Wisconsin Research & Development Center; creative playacting; women in education, including children's perceptions of women and their roles (first of a series); responses to a previous program concerning alumni contributions; and education news highlights. Participants in the program are John Merrow and Wendy Blair, moderators; Louis Romano; Dan Lockwood; Isabel Burger, of the Children's Theatre Association; Eric Saunders; and Selma Greenberg. (JM)

-6-
AN - ED130299
TI - Options in Education, Transcript for February 9, 1976: Federal Money for Higher Education; California High School Proficiency Test; College Students' Writing Problems; Columbus, Ohio Arts Impact Program; and Women in Education
SO - (1976); 24pp
- RIE77MAR
AV - EDRS Price MF-$0.83 HC-$1.67 Plus Postage.(1 MF).
AB - "Options in Education" is a radio news program which focuses on issues and developments in education. This transcript contains discussions of federal money for colleges and universities; the high school proficiency test in California; the writing problems of college students; letters from listeners about schooling and jobs; the Arts Impact program in Columbus, Ohio; and women in education, including facts about Martha Washington and nonsexist classroom techniques. Participants in the program include John Merrow and Wendy Blair, moderators; Harold Howe II, of the Ford Foundation; reporters Rose Tobin, Gary Gottschalk, and Jennifer Alt; Gloria Rapinchuk; Merle Levine; and Janice Earle. (JM)

-7-
AN - ED130300
TI - Options in Education, Transcript for February 16, 1976: National Commitment to Equal Rights & Equal Educational Opportunity, Racial Conflict in the Classroom, Setting Up a Publishing Business, and Women in Education (Mathematics and Sex)
SO - (1976); 22pp
- RIE77MAR
AV - EDRS Price MF-$0.83 HC-$1.67 Plus Postage.(1 MF).

GENERAL PUBLICATIONS ON SEX EQUITY

AB - "Options in Education" is a radio news program which focuses on issues and developments in education. This transcript contains discussions of the national commitment to desegregated education, racial conflict in the classroom, learning how to set up a publishing business, women in education (mathematics and sex) and education news highlights. Participants in the program include John Merrow and Wendy Blair, moderators; Nathaniel Jones, of the NAACP; students Nan Parati and Belinda Shivers; Ernest Green, of the Recruitment and Training Program, Inc.; author Jonathon Kozol; Julia and Frank Markus; John Ernest; and Sheila Tobias. (JM)

-8-
AN - ED130301
TI - Options in Education, Transcript for February 23, 1976: Conflict in Theory, Conflict in Research, and Conflict in Practice
SO - (1976); 21pp
- RIE77MAR
AV - EDRS Price MF-$0.83 HC-$1.67 Plus Postage.(1 MF).
AB - "Options in Education" is a radio news program which focuses on issues and developments in education. This transcript contains discussions of conflict in theory--education in America, difficulties in dramatizing today's racism, and children's relationships in a predominately black school; conflict in research--marijuana and sexual response, teaching basic skills through drama, and an energy conservation, youth training program; and conflict in practice--women in education and preparing women for administrative advancement. Participants in the program include John Merrow and Wendy Blair, moderators; author Jonathon Kozol; Kenneth B. Clark; Gretchen Schafft; Harris Rubin; Virgil Harwood; Joe Janetti; and Virginia Nordin. (JM)

-9-
AN - ED130303
TI - Options in Education, Transcript for March 8, 1976: Parent Tutors, Feminization of the Teaching Profession, Test Score Controversy, and Busing
SO - (1976); 21pp
- RIE77MAR
AV - EDRS Price MF-$0.83 HC-$1.67 Plus Postage.(1 MF).
AB - "Options in Education" is a radio news program which focuses on issues and developments in education. This transcript contains discussions of volunteer parent tutors in a junior high school, the feminization of the teaching profession, the test score controversy, busing as an issue in the political primaries, and busing and the role of the social scientist. Participants in the program include John Merrow and Wendy Blair, moderators; parents, students, and faculty of Eisenhower Junior High School in Laurel, Maryland; reporters Kathy Lewis and David Ensor; Maxine Seller; Gail Kelley; Marshall Smith, of the National Institute of Education; Pat Caddell; Ben Wattenberg; Mark Shields; James M. Coleman; and Kenneth B. Clark. (JM)

APPENDIX

NIE Program Staff
Responsible for Sex Equity Projects

NIE PROGRAM STAFF RESPONSIBLE FOR SEX EQUITY PROJECTS

The following NIE program staff members have been monitors of the sex equity projects in section II.

Teaching and Learning Program

Learning and Development- Susan Chipman
Social Processes/Women's Research Team - Joan Aliberti*, C.B. Crump*, Susan Klein, Leila Rosen Young*, Patricia Thompson*, Jeana Wirtenberg

Cognitive Studies Team - Larry Goebel, Judy Segal, Roz Wu

Mathematics Learning Team - Ed Esty, Luis Ortiz-Franco, Kent Sullivan

Home, Community and Work - Jean Miller, Robert Pruitt*

Teaching and Instruction - Virginia Koehler, Joe Young,* Ursula Pinero

Testing, Assessment and Evaluation - Mary Ann Millsap

Educational Policy and Organization Program

Law and Public Management - Lana Muraskin, Marylou Randour, Allan Rosenbaum, Mary Von Euler, Stuart Rosenfeld

Educational Organizations and Local Communities - Gail MacColl, John Wirt

Educational Finance - Nevzer Stacey

Dissemination and Improvement of Practice Program

Minorities and Women's Program - Frank Alejandro, Gwendolyn Baker, Sharon Artis, Sarita Schotta*, Juliet Stovall, Susan Talley

Research and Educational Practice - Naida Bagenstos, John Egermeier

Information Resources - Mildred Thorne, Catherine Welsh
(Mary Campbell arranged for the computer generated abstracts in section III.)

* Individual left NIE prior to 10/20/79.